

# **Disability in Iowa**

**Health and Social Characteristics of Iowans with disabilities:**

*Analysis of the American Community Survey and*

*The Behavioral Risk Factor Surveillance Survey*

*2002 - 2007*

**Kay Degarmo  
Binnie LeHew  
James C Torner**

**Prepared by Ousmane Diallo**

**for the**

**Prevention of Disabilities Policy Council**



**Iowa Department of Public Health  
Office of Disability, Injury & Violence Prevention**



**University of Iowa  
Center for Disabilities & Development**

**TABLE OF CONTENTS**

**TABLE OF CONTENTS**.....2

**List of Figures**.....2

**List of Tables** .....3

**Executive Summary** .....4

**Introduction** .....5

**Introduction** .....5

**Methods**.....5

**Disability in Iowa** .....7

*Disability Trends from 2003 to 2007* .....7

        Any-disability prevalence .....7

        Multiple disabilities.....7

*Demographics*.....9

*The Co-morbid Conditions using the BRFSS, 2002-2007* .....11

        Chronic conditions .....11

**Health Behaviors** .....18

        Substance abuse .....18

        Physical Activities.....20

**Access to Health Care** .....21

*Socio-Economic and Health Outcomes*.....21

**Health Status** .....21

        Marital Status .....24

        Educational attainment.....25

        Employment .....25

        Income level.....27

**Conclusions and Recommendations** .....28

Appendix .....29

    Definitions ACS .....29

References .....31

**List of Figures**

Figure 1: Disability trend, Iowa 2003-2007 .....7

Figure 2: Percent Distribution of the number of disabilities among Iowans, 2002-2006 .....8

Figure 3: Work disability by any disability .....8

Figure 4: Prevalence of disability by age .....9

Figure 5: Male: Female disability ratio by age distribution .....10

Figure 6: Race distribution.....10

Figure 7: Depression by Disability Status.....11

Figure 8: At least ONE day of Depression in the month by disability status and Age .....12

Figure 9: Arthritis Prevalence by Disability .....12

Figure 10: Disability prevalence by Arthritis Condition and Age Groups .....13

Figure 11: Disability Prevalence by Weight Status .....13

Figure 12: Disability prevalence by Weight and Age .....14

Figure 13: Diabetes Prevalence by Disability Status .....14

Figure 14: Disability Prevalence by Diabetes Types .....15

Figure 15: Disability prevalence by Diabetes and Age.....15

Figure 16: Disability prevalence by High Blood Pressure Status .....16

Figure 17: Disability prevalence by HBP and Age .....16

Figure 18: Disability Prevalence by Coronary Heart Disease Status.....17

Figure 19: Disability Prevalence by CHD and age .....	17
Figure 20: Disability Prevalence by Stroke Condition .....	18
Figure 21: Disability prevalence by Stroke and Age .....	18
Figure 22: Smoking prevalence by Disability Status.....	19
Figure 23: 30-day alcohol use and Disability Status.....	19
Figure 24: Moderate Physical Activities and Disability Status .....	20
Figure 25: Health Insurance Coverage by Disability Status, 18-64 age Group.....	20
Figure 26: General Health Condition by Disability Status .....	21
Figure 27: Average Number of Fair/Poor Health Days by Disability Status.....	21
Figure 28: Average Numbers of Fair/Poor Mental Health Days by Disability Status.....	22
Figure 29: Marital Status by Disability .....	22
Figure 30: Marital Status by Disability and Age .....	23
Figure 31: Educational Attainment by Disability Status .....	24
Figure 32: Employment by Disability Status .....	25
Figure 33: Poverty Condition by Disability Status .....	25
Figure 34: Yearly Income by Disability Status.....	26
Figure 35: Work Disability distribution by Multiple Associated Disabilities.....	27
Figure 36: Poverty Condition by Disability Status .....	27
Figure 37: Yearly Income by Disability Status.....	28

### List of Tables

Table 1: Disability type by Age, ACS 2003-2007 .....	9
Table 2: Disability Prevalence by Having at least ONE day of impaired health per month.....	24

## Executive Summary

Disability can be referred as a restriction in ability to perform the major activities of life because of physical, mental, or emotional impairments or conditions. In Iowa the adult population with disability is generally estimated at 376,000 (18%) according to the Centers for Disease Control and Prevention (CDC) Behavioral Risk Factor Surveillance System (BRFSS) Survey.

This report used two primary data sources; the American Community Survey (ACS) from 2002-2007, and Behavioral Risk Surveillance System surveys from 2002-2007.

- The ACS estimates show, over the five year period, an average prevalence of 14.7% of Iowans older than five years of age with some kind of disability.
  - Among Iowans with disabilities from 2003 to 2007, 58% had one single disability and 42% more than two disabilities. Those with multiple disabilities had a physical component 89% of the time. Disability prevalence increased with age. The prevalence of disability was greatest among the elderly.
  - At a younger age, males were more likely to have a disability. Female disability increased much more during the later life stages.
  - Blacks in Iowa seemed to have a higher prevalence of disability than their counterparts who were White, of another race, or of Hispanic origin.
  - Iowans with disabilities were more likely to be single, separated or widowed. They were less likely to have a graduate school education level than Iowans without disability.
  
- The BRFSS analysis demonstrated that Iowans with disabilities had a greater prevalence of chronic conditions and were more likely to smoke and participate less in moderate physical activities. They were also less likely to drink.

## Introduction

According to the Americans with Disabilities Act, Section 503 of the Rehabilitation Act of 1973, and Section 188 of the Workforce Investment Act, a person with a disability (PWD) is generally defined as someone who (1) has a physical or mental impairment that substantially limits one or more "major life activities," (2) has a record of such an impairment, or (3) is regarded as having such an impairment.

The CDC estimates more than 54 million Americans have an activity limitation/disability associated with a long-term physical, sensory, or cognitive condition. The prevalence of disability in the U.S. population has been measured fairly consistently at 18-19 percent.

In Iowa the adult population with a disability is generally estimated at 376,000 (16%) according to the Center for Disease Control and Prevention Behavioral Risk Factor Surveillance System (<http://www.cdc.gov/ncbddd/dh/chartbook/iowa.pdf>).

This report is intended to provide general information about disability, which is defined differently depending on the data sources. Disability can be referred as a restriction in the ability to perform major activities of life because of physical, mental, or emotional impairments or conditions. Secondary conditions are very difficult to assess with cross sectional data. To determine which conditions led to disability or were caused by disability need longitudinal studies where subjects are followed over time and assessed for pre-and post disability conditions.

For the purpose of this report, association between disability and potential disabling conditions (such as cardiovascular heart disease and stroke, high blood pressure, obesity, diabetes, and Arthritis) were assessed. As disability is a recognized source of disparities, and affects health care access and utilization, as well as social outcomes such as employment, income and marital status.

## Methods

### Data sources

This report used primarily two data sources the American Communication Survey (ACS) and Behavioral Risk Factor Surveillance System (BRFSS) survey.

The American Community Surveys are offered between census periods. In the ACS, disability is defined as "a long-lasting physical, mental, or emotional condition, which makes it difficult for a person to do activities such as walking, climbing stairs, dressing, bathing, learning, or remembering. This condition can also impede a person from being able to go outside the home alone or to work at a job or business." There are six questions used to assess disability, and these are particularly related to sensory, learning and remembering, physical activities, self-care, difficulty going out, and work disabilities. The three latter questions are limited to 16 years and older<sup>1</sup>. Since public data files were used, disability could not be described at a county level.

The BRFSS is an annual random digit telephone survey. The BRFSS has been used in Iowa for a very long time and evaluation studies have demonstrated its reliability<sup>2</sup>.

On the BRFSS, disability status of the adult population (18 years of age or older) is identified when the participants respond positively to one of two specific questions: Activity limitation due to any health

problem, and the use of equipment. The first question asks whether the participant was limited in any way in any activities because of physical, mental, or emotional problems. The second asks whether the participant has any health problem that required the use of special equipment, such as a cane, a wheelchair, a special bed or telephone.

### Analysis

A basic univariate analysis was run, with significance level tested with the Chi-Square test for binomial distributed outcomes and Mantel Hanzel test for categorical exposure variables. For significance level and statistical test, a p value of 0.05 was considered significant and when appropriate 95% confidence intervals were provided (95% CI).

The report combined 2003-2007 ACS data and the 2002-2007 BRFSS data. Therefore, the prevalence estimates are respectively four- and five-year averages. To generate adequate estimates, due to the nested nature of the survey, a yearly appropriate weight was applied to the data and the subsequent frequencies were averaged.

For data management and analysis this report used the Statistical Analysis Software (SAS 9.1) and the Software of Correlated Data Analysis (SUDAAN callable software) from the Cary Institute, North Carolina.

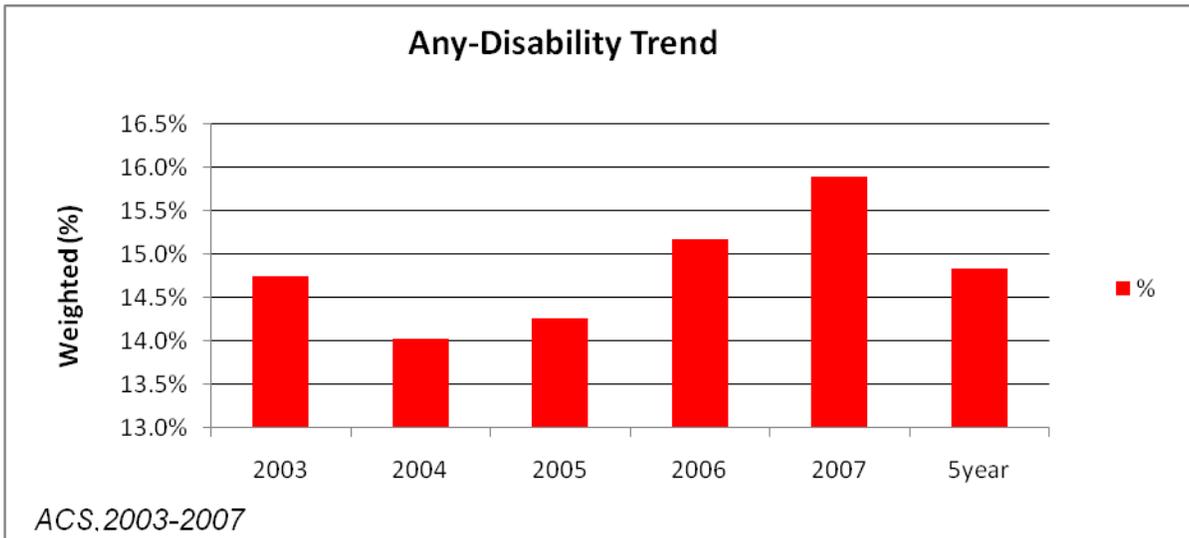
## Disability in Iowa

### *Disability Trends from 2003 to 2007*

#### Any-disability prevalence

On average, 14.7% of Iowans older than five years of age have some kind of disability.

From 2003 to 2007, there was a U-shaped prevalence trend. The prevalence of disability seemed highest in 2003 (14.7%); then decreased until 2004 (14.0%). The prevalence increased from 2004 to 2007 (15.9%).

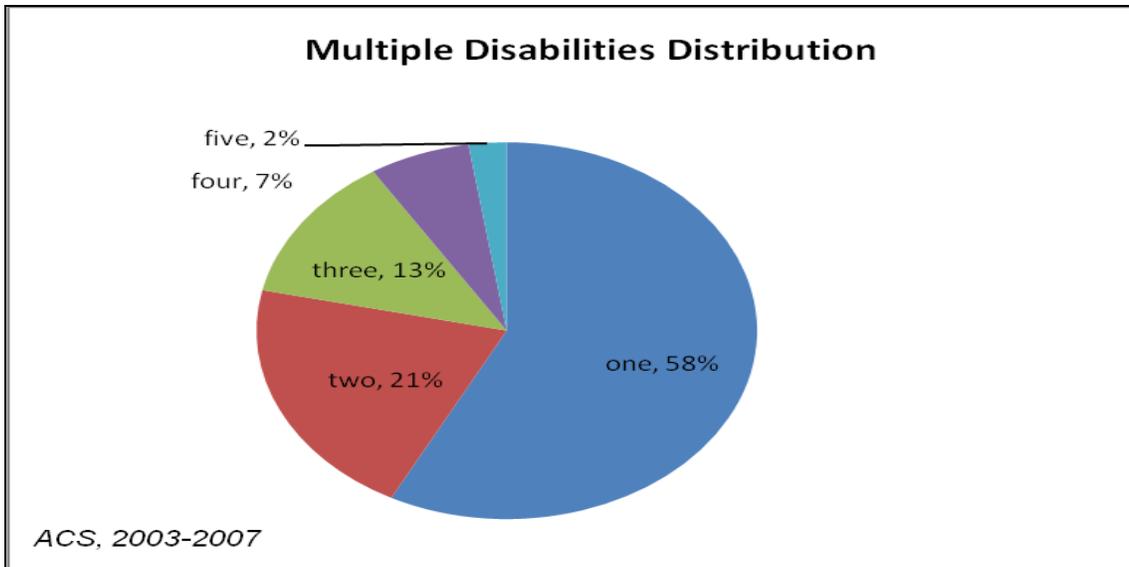


**Figure 1: Disability trend, Iowa 2003-2007**

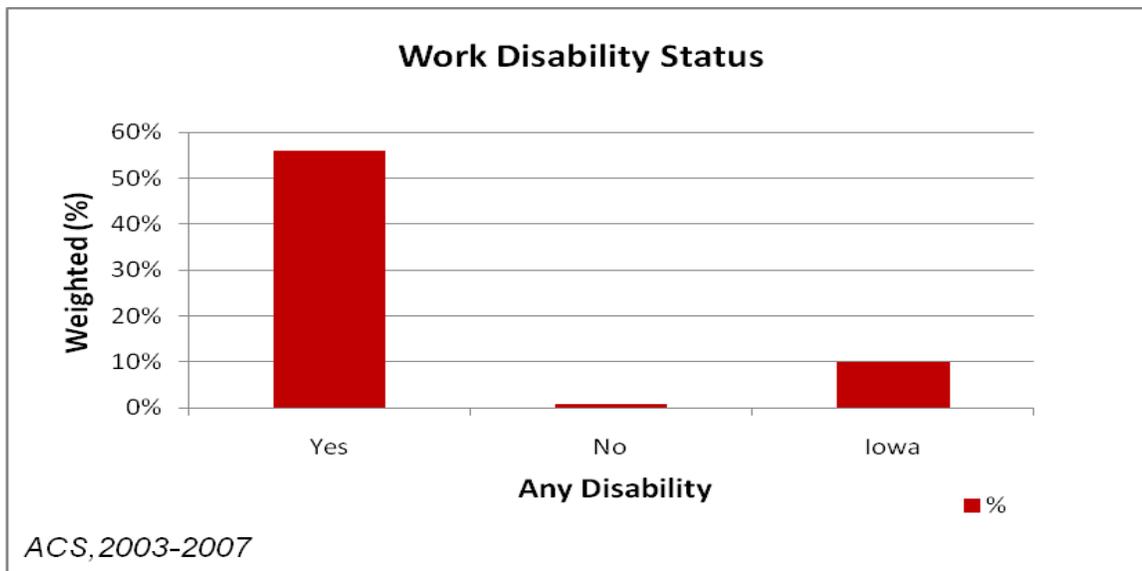
#### Multiple disabilities

To have a better picture of disability characteristics, work disabilities were separated out from other types of disabilities and the prevalence of multiple disabilities among Iowans (irrespective of work disability status) was assessed.

Among Iowans with disabilities from 2003 to 2007 (as shown in figure 2), 58% had one single disability, which corresponded to physical disability (58%), sensory (22%) and mental (20%). Approximately 42% had more than two disabilities; and of those, 89% had a physical component to it.



**Figure 2:** Percent Distribution of the number of disabilities among Iowans, 2003-2007



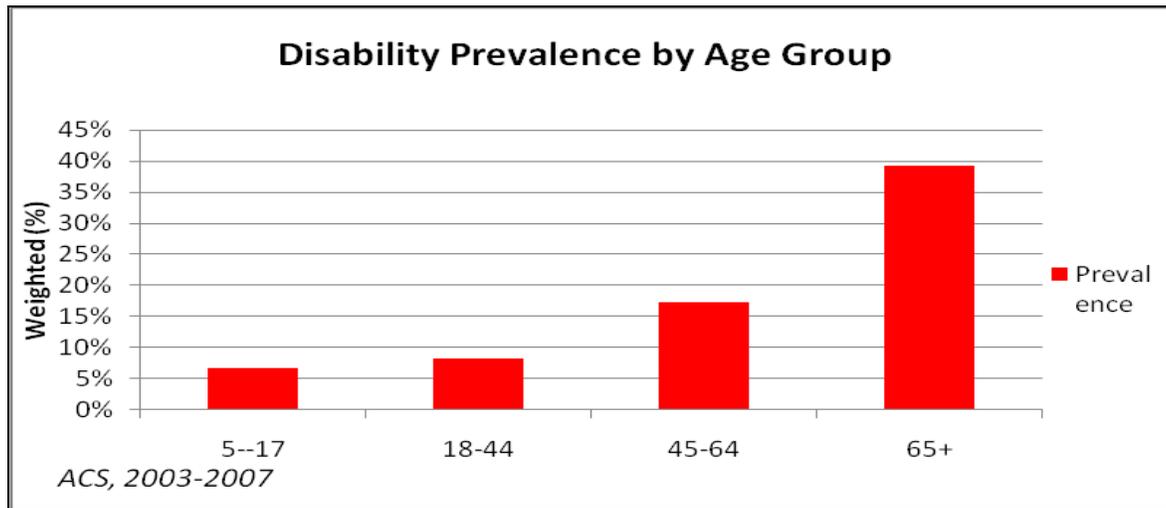
**Figure 3:** Work disability by any disability, 2003-2007

Over the 5-year period, the average of work disability prevalence among 18-65 year-olds was 10%. The majority of Iowans with a disability (56%) reported a work related disability.

There were over 227,000 people who responded “having difficulties at work”. Among people who were identified as having a work-related disability, 54% had a single disability and 46% had at least two disabilities. Iowans who had a work-related disability were more likely to have multiple disabilities than those who were did not (46% vs. 22%).

**Demographics**

Disability prevalence increased with age. Until the age of 35 years, the prevalence of disability among Iowans was around 14.7%, and this rose slowly across the age groups. The rate doubled for the 35 to 44 year-old age group, and almost reached 30% for the 65 to 75 year-olds. Among those who are over 75, the prevalence of disability was 50% (Figure 4).



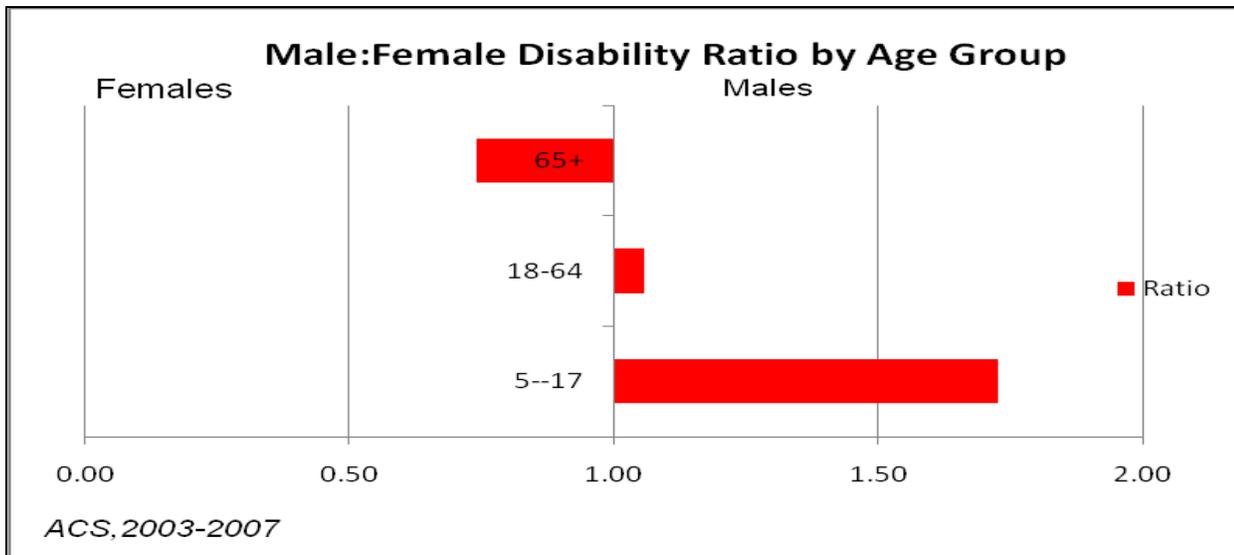
**Figure 4:** Prevalence of disability by age

The most frequent types of disability, by order of magnitude, were physical, going out, mental, and sensory. The prevalence of physical disability increased over the 5% mark at 45 years of age and continuously increased with age. Mental disability as it relates to remembering, concentration and learning, and sensory disabilities (such as vision and hearing) were mostly prevalent among Iowans over the age of 65 years (Table 1).

**Table 1:** Disability type by Age, ACS 2003-2007

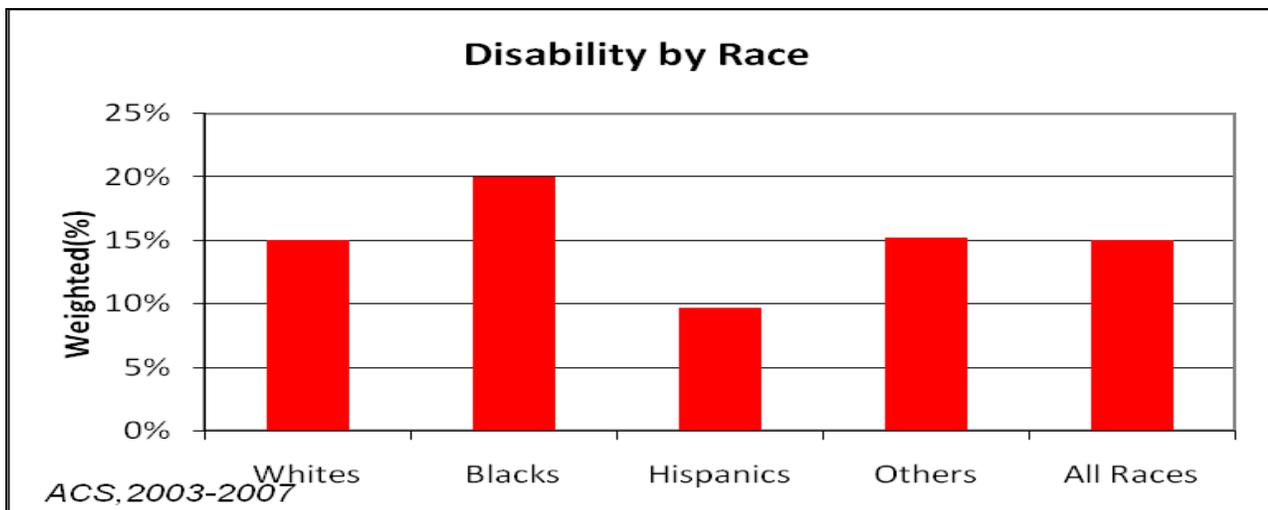
Age	N	Disability Type			
		Physical difficulty	Going out	Mental	Sensory
05--09	185,751	1%		5%	1%
10--17	81,736	1%	1%	6%	1%
18-24	286,685	1%	1%	4%	1%
25-34	359,378	3%	2%	4%	2%
35-44	408,221	5%	2%	4%	2%
45-54	434,012	9%	3%	5%	3%
55-64	311,131	15%	4%	5%	5%
65-74	201,135	20%	7%	5%	9%
75+	213,247	38%	23%	15%	23%
Iowa	2,295,545	10%	6%	6%	5%

At a younger age, males were more likely to have disability than females, but with older ages, females outnumbered the males. Between 5 and 24 years of age, males had 50% increased prevalence than females (figure 5).



**Figure 5:** Male: Female disability ratio by age distribution

Compared to all other racial groups, Blacks in Iowa had the highest disability prevalence and those of Hispanic origin had the lowest. The respective prevalence's were 20% and 8%. The average disability prevalence among Whites was 15%. Caution is required when interpreting the race data, since there are more elderly Whites than Blacks or Hispanics and the prevalence rates were not age adjusted, which may lead to underestimation of the minority rates, especially among Blacks.



**Figure 6:** Race distribution

***The Co-morbid Conditions using the BRFSS, 2002-2007***

According to the 2002 to 2007 BRFSS estimates, on average 16.5% of Iowans older than 18 years had some kind of physical limitations due health problems and 5.6% needed equipment. The overall average prevalence of disability among adult Iowans was 18%.

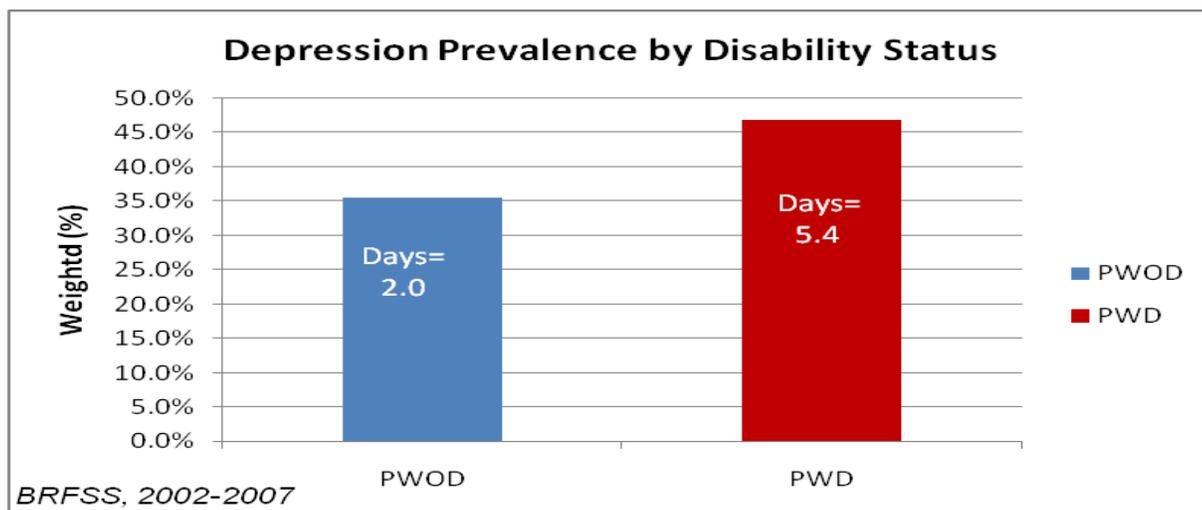
**Chronic conditions**

Disability is associated with chronic conditions. Chronic conditions were assessed by asking the participants whether they had “ever been told by a doctor that (they) have (disease or the health condition)”. In this report, only depression, arthritis, obesity, diabetes, high blood pressure, cardiovascular diseases, and strokes are assessed. Age is a very important confounder to take into account when assessing the association between disability status and chronic conditions. Systematically, the analysis was stratified by age (18-44, 45-64 and 65+).

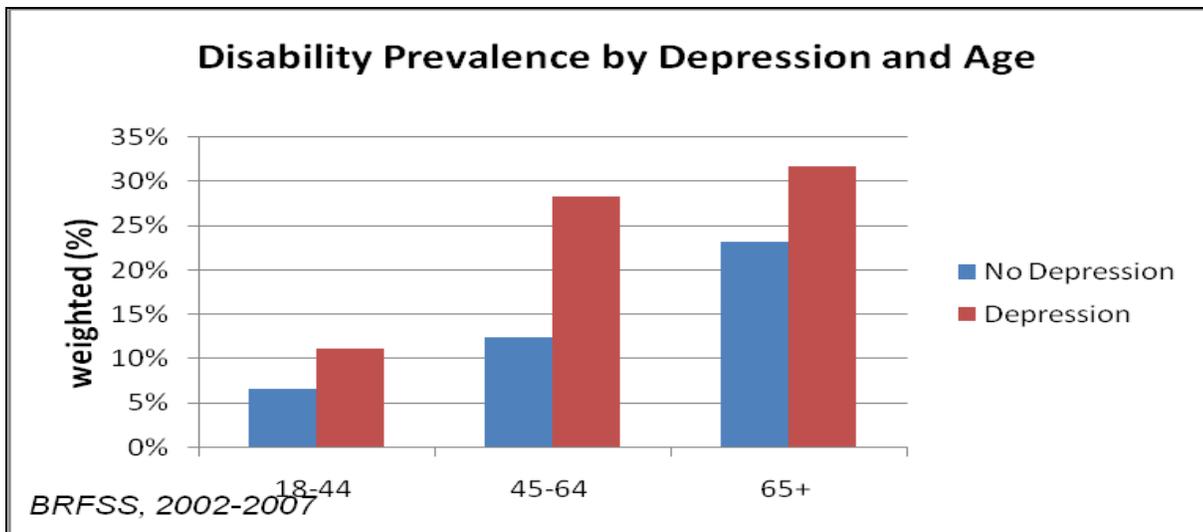
Depression

Of those who responded to the depression question, 37% declared having at least one day during the last month when they were depressed. Among Iowans without disability, the average rate was the same as the general population rate, while the rate among people with disability was 27% higher. On average, people with disability reported 5.4 days per month when they were depressed compared to one or two days for people without disability (Figure 7). Depression is correlated with age and disability. The prevalence of disability was greater among people who felt depressed and increased with age. Disability prevalence reached over 30% for elderly people with depression, compared to 22% for elderly without depression.

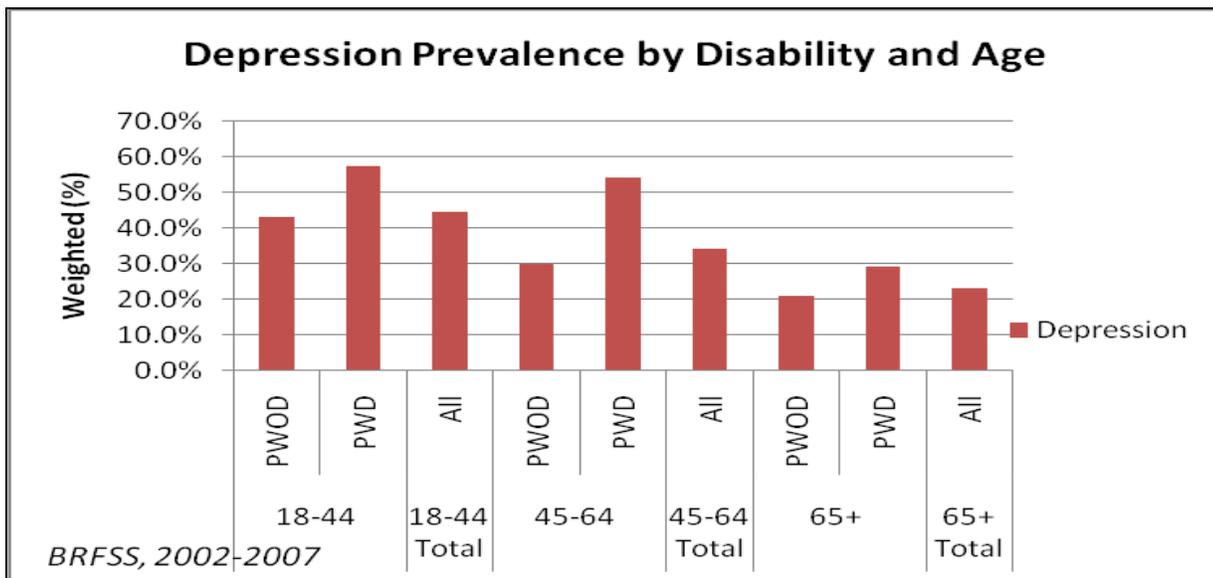
Depressive symptoms were most frequent among the younger population. The prevalence of “having at least ONE day” when feeling depressed was greater among the 18-44 age groups irrespective of disability status, although people with a disability (PWD) had a higher prevalence (Figure 8). In the 18-44 age group, over 57.4% of PWD had at least One day in the month of depressive symptoms compared to 43.2% for PWOD (Figure 9).



**Figure 7: Depression by Disability Status**



**Figure 8: Disability Prevalence by Age and Having At least ONE day of Depression in the month**

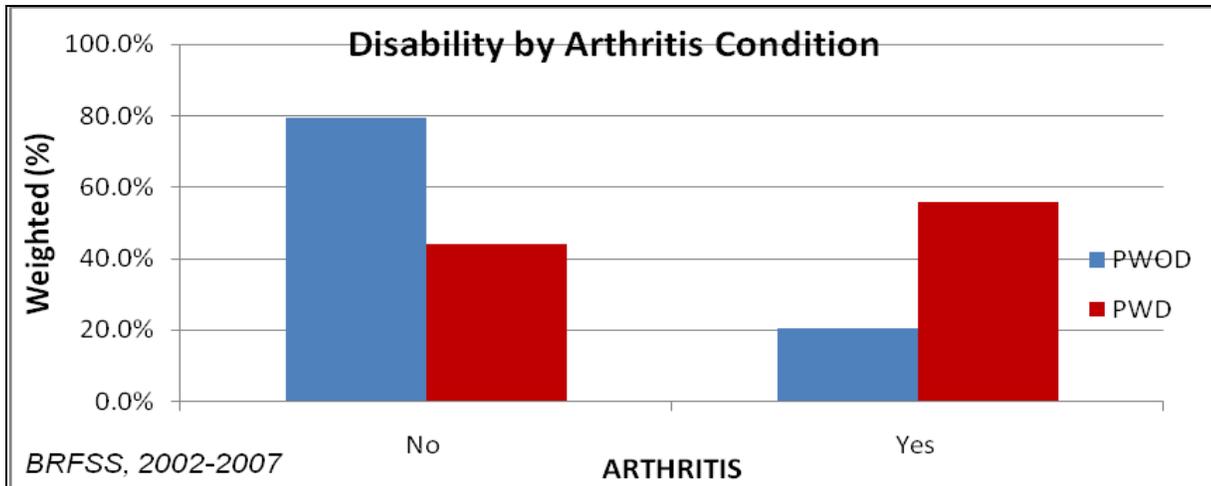


**Figure 9: Prevalence of Having At least ONE day of Depression in the month by Disability and Age**

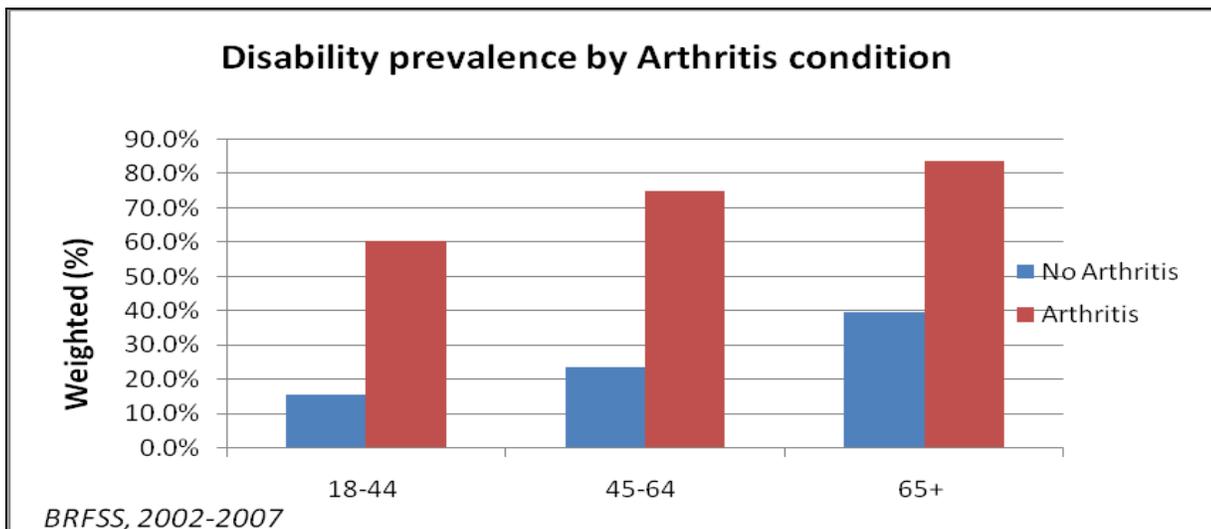
Arthritis

From 2002 to 2007, the average prevalence of doctor-diagnosed arthritis was 27% in the general adult population in Iowa. Iowans with disabilities had almost three times higher prevalence of arthritis compared to those without disabilities, corresponding to 58% vs. 21% (Figure 10).

The disability prevalence increased with age among Iowans with arthritis, and those without arthritis as well. Between the ages of 18-44, 60% of Iowans with arthritis were considered to have a disability compared to 15.5% of those without arthritis conditions. The prevalence was greater among the 65+ with or without arthritis (Figure 11).



**Figure 10: Disability Prevalence by Arthritis Condition**

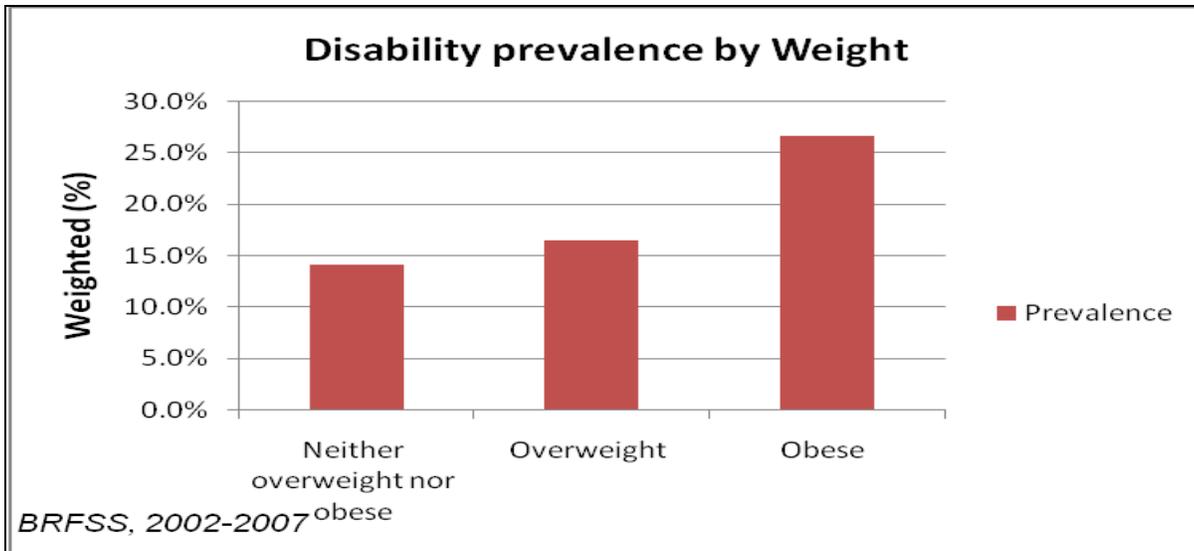


**Figure 11: Disability prevalence by Arthritis Condition and Age**

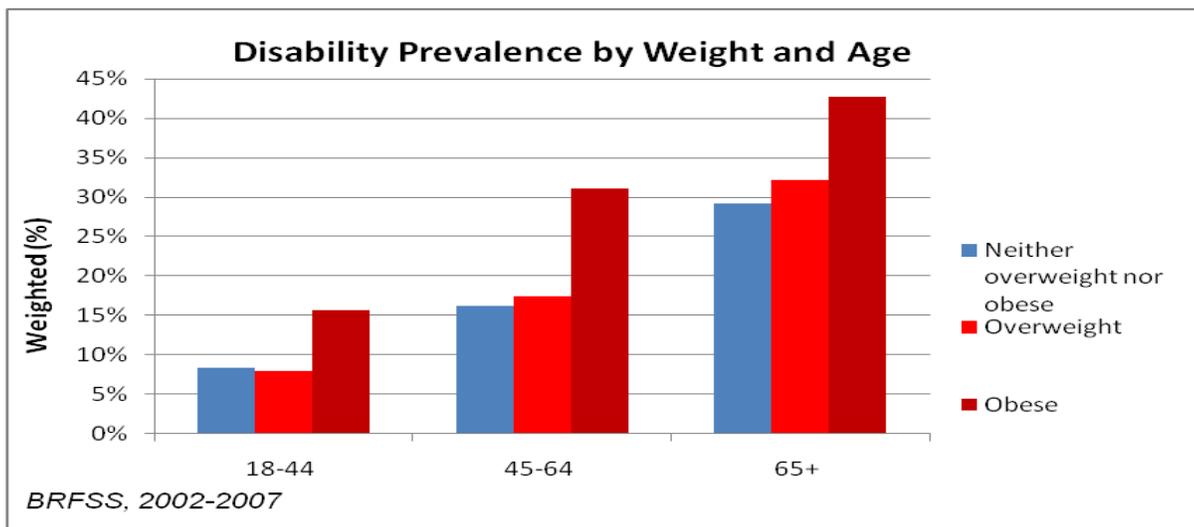
Obesity

From 2002-2007, one in four Iowans was obese. On average, the prevalence of disability increased with weight. Iowans with normal weight had a disability prevalence of 14.2%. Disability prevalence reached 16.5 and 26.7%, respectively, for those who were overweight and obese (Figure 12). Inversely, a look at the distribution of weight disorders among Iowans by disability status finds the prevalence of obesity 2.7 times greater among PWD than PWOD, 38% vs. 14%.

Age in combination of obesity increased the risk of disability as the obese elderly presented the highest prevalence of disability compared to non obese. The prevalence of disability among the obese elderly was 43% compared to 29% among normal weight elderly (Figure 13).



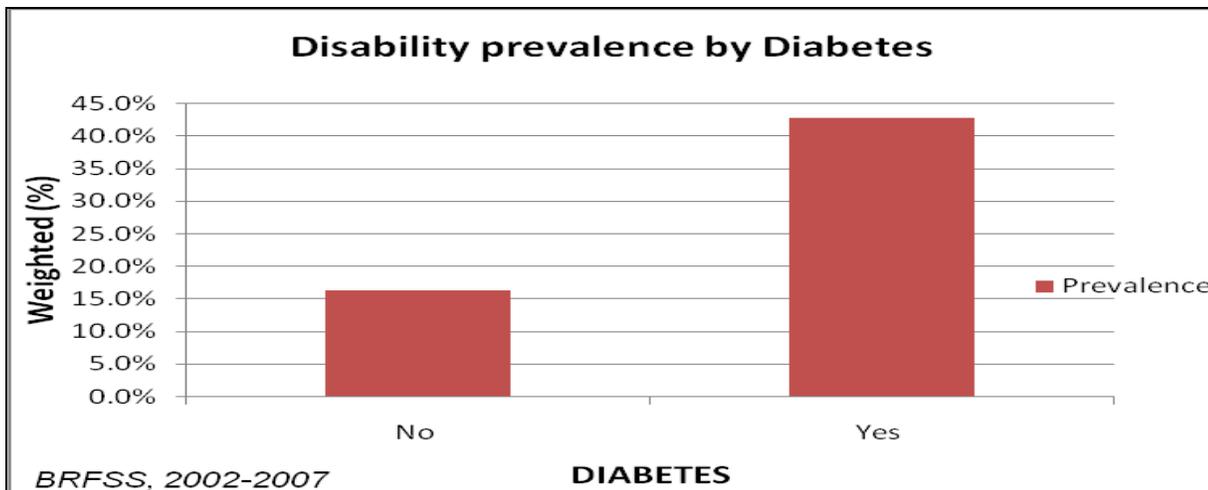
**Figure 12:** Disability Prevalence by Weight Status



**Figure 13:** Disability prevalence by Weight and Age

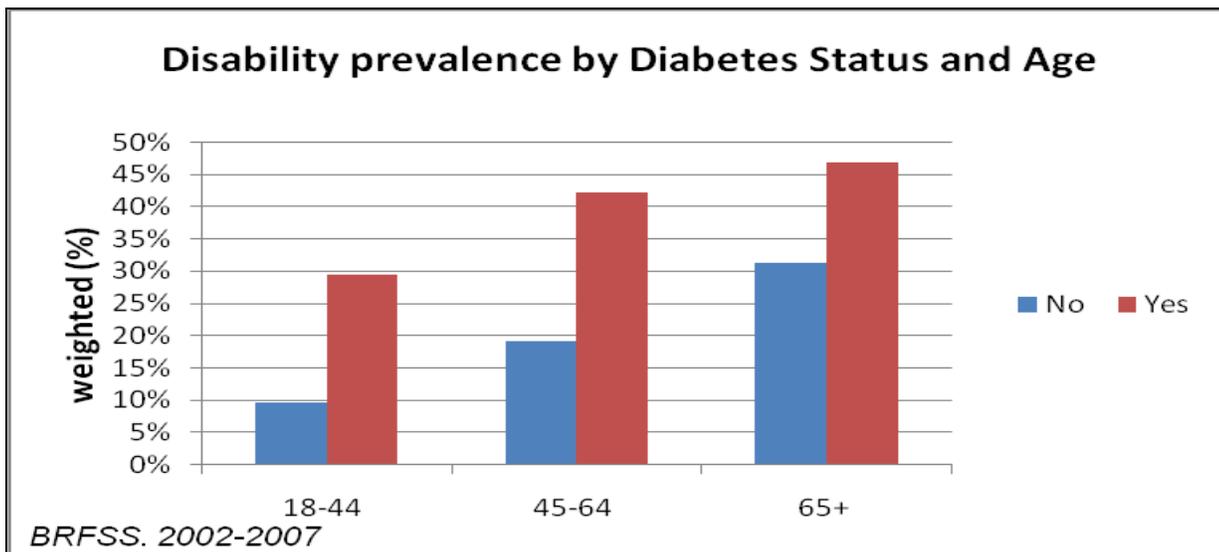
Diabetes

Over the years, the prevalence of diabetes in Iowa has been, on average, 8%. Iowans with disabilities were almost three times more likely to have diabetes than Iowans without disability. The prevalence of diabetes was 17% among Iowans with disabilities and 6% for those without (Figure 14). The disability prevalence increased with the different types of diabetes. Pre-diabetes condition or borderline diabetes was associated with disability. Iowans with borderline diabetes had a 35% prevalence of disability, which increased to 42% for diabetics. For females with pregnancy-related diabetes, the disability prevalence was no different than among diabetes-free Iowans.



**Figure 14: Diabetes Prevalence by Disability Status**

Taking age into account, the impact of diabetes on disability prevalence was markedly greater among the youth. Compared to non-diabetic youth, the prevalence of disability was three times greater among diabetic youth, while among the elderly the disability prevalence was only 50% higher for diabetics than non-diabetics (Figure 15).



**Figure 15: Disability prevalence by Diabetes and Age**

High Blood Pressure

The prevalence of High Blood Pressure (HBP) was twice the rate among Iowans with disabilities than for those without. Among adult Iowans with disabilities, the prevalence of the HBP was on average 44% compared to 21% among people without disability (Figure 16). Conversely, the prevalence of disability was greater among Iowans suffering from HBP – reaching 32% compared to 13% for those without known HBP. The difference of disability prevalence across HBP status was reduced with age. Among youth (18-44) and adults (45-64), having HBP doubled the risk of disability. While among the elderly, HBP increased the risk of disability by 27% (Figure 17).

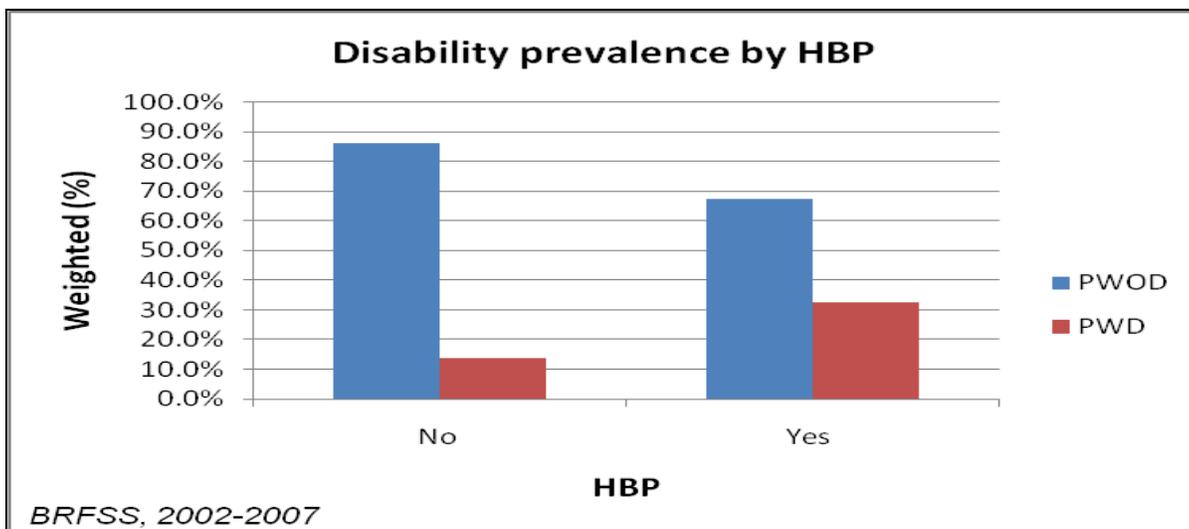


Figure 16: Disability prevalence by High Blood Pressure Status

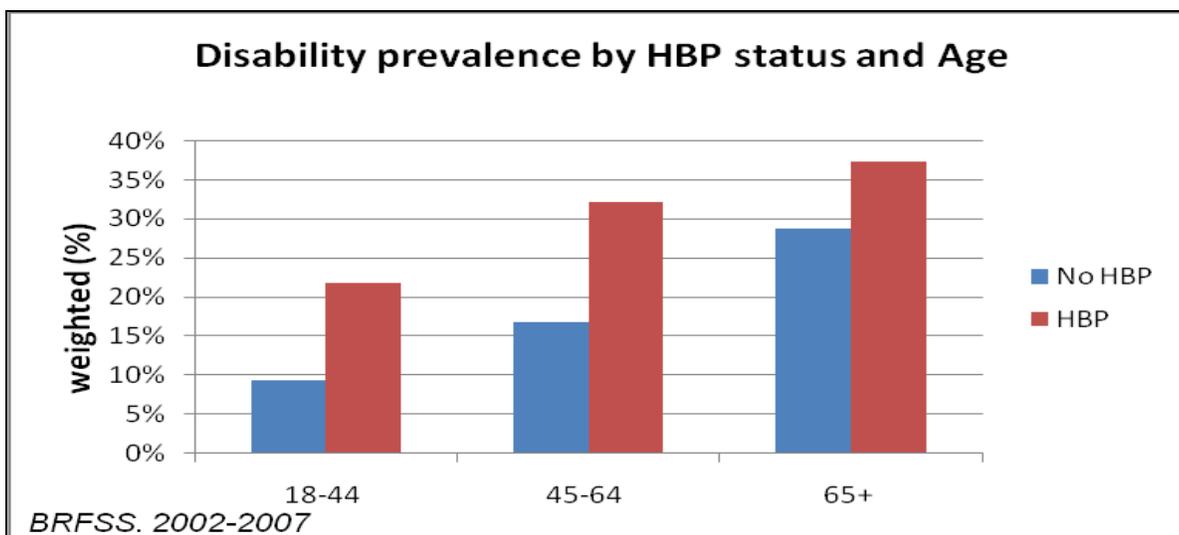
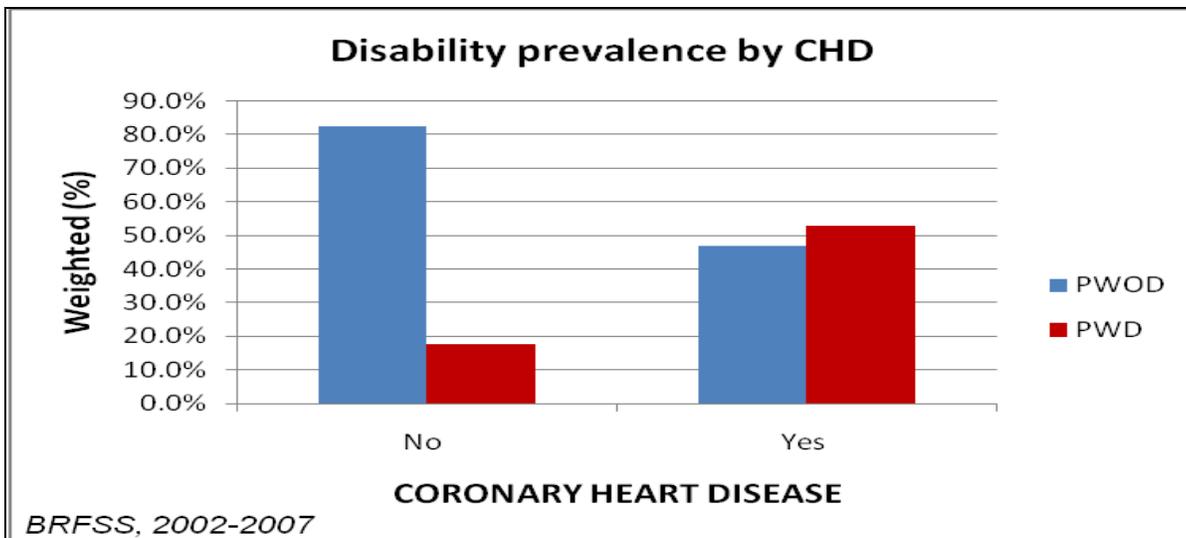


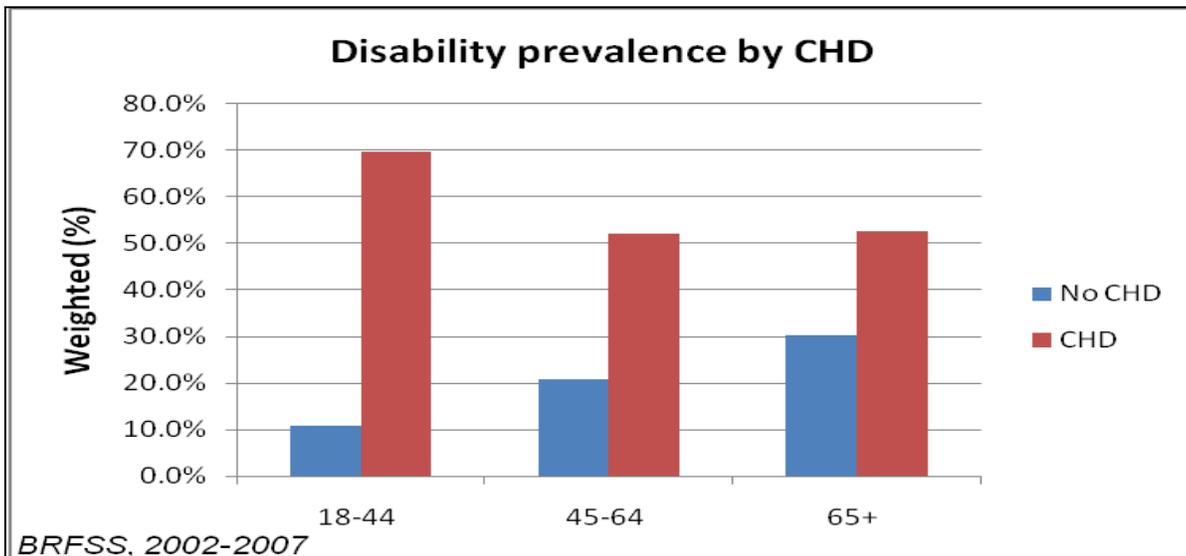
Figure 17: Disability prevalence by HBP and Age

Cardiovascular diseases

The overall prevalence of Coronary Heart Disease (CHD) over the six-year period was 4%. Adult Iowans with disabilities had an 11% prevalence of CHD compared to 2.4% among Iowans without disabilities. When comparing disability prevalence by CHD status, the prevalence of disability was 52% vs. 18% respectively for people with coronary heart disease vs. those without CHD (Figure 18). Additionally, as shown in Figure 19, age is a very important predictor of CHD, but with CHD the risk of disability increased more among the youth and adults than the elderly. Youth and adults were three times more likely to have a disability when suffering from CHD than the elderly. The prevalence of disability was greater among Iowans with coronary heart disease in the 18-44 age group (over 70%), and this was seven times greater than the prevalence among Iowans without CHD.



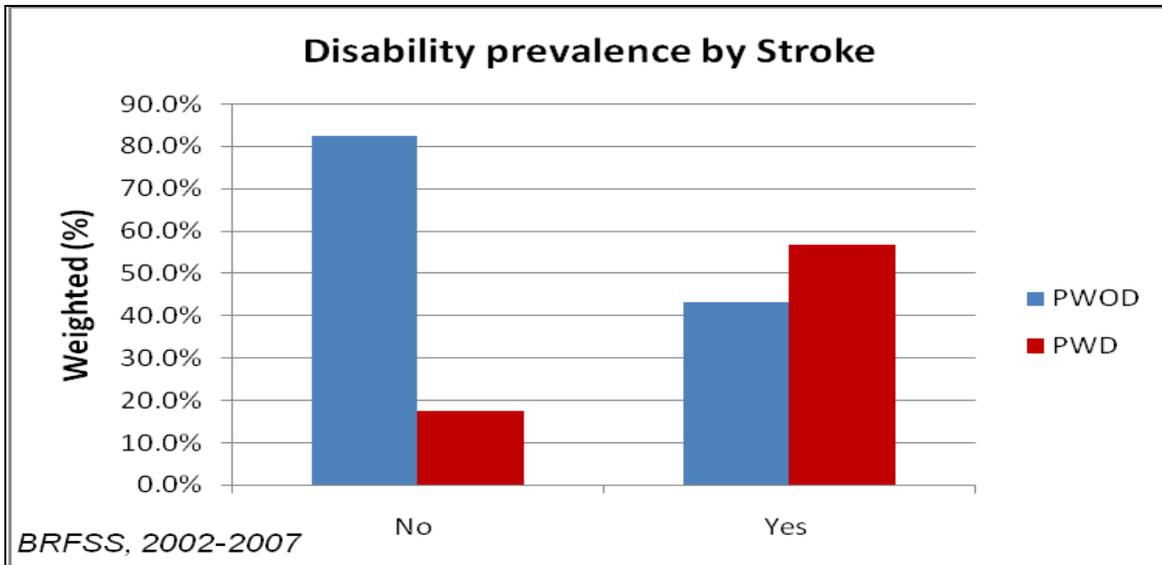
**Figure 18: Disability Prevalence by Coronary Heart Disease Status**



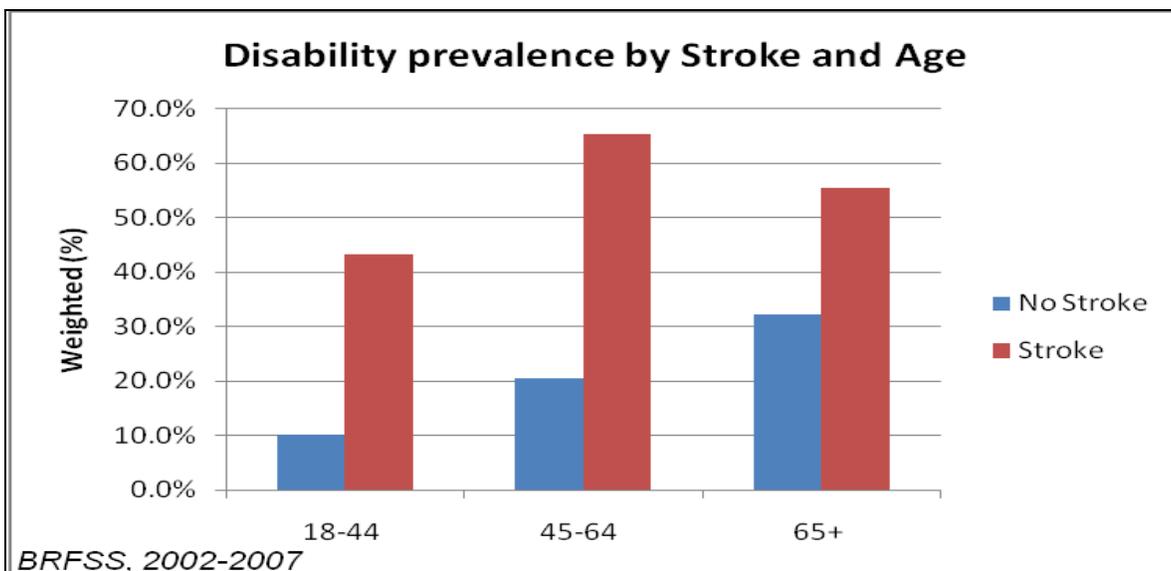
**Figure 19: Disability Prevalence by CHD and age**

Strokes

The overall prevalence of stroke in Iowans during the past seven years was 3%. Iowans with disabilities had a greater prevalence of stroke compared to Iowans without disabilities, which amounted to 8% and 2%, respectively. For those with stroke, the prevalence of disability was three times greater among people with stroke than among people without (Figure 20). Like CHD, stroke was related to age. Disability prevalence rates increased with age, as illustrated in Figure 21. Between the ages of 18-44, the average prevalence of disability was 35% among Iowans suffering from stroke compared to 10% for those without stroke. The prevalence increased substantially for Iowans older than 45 years of age with stroke – up to 64% and 54%, respectively, for 45-64 and 65+ age groups. The disability prevalence increased as well for those within the same age groups; reaching 20% and 32% respectively.



**Figure 20: Disability Prevalence by Stroke Condition**

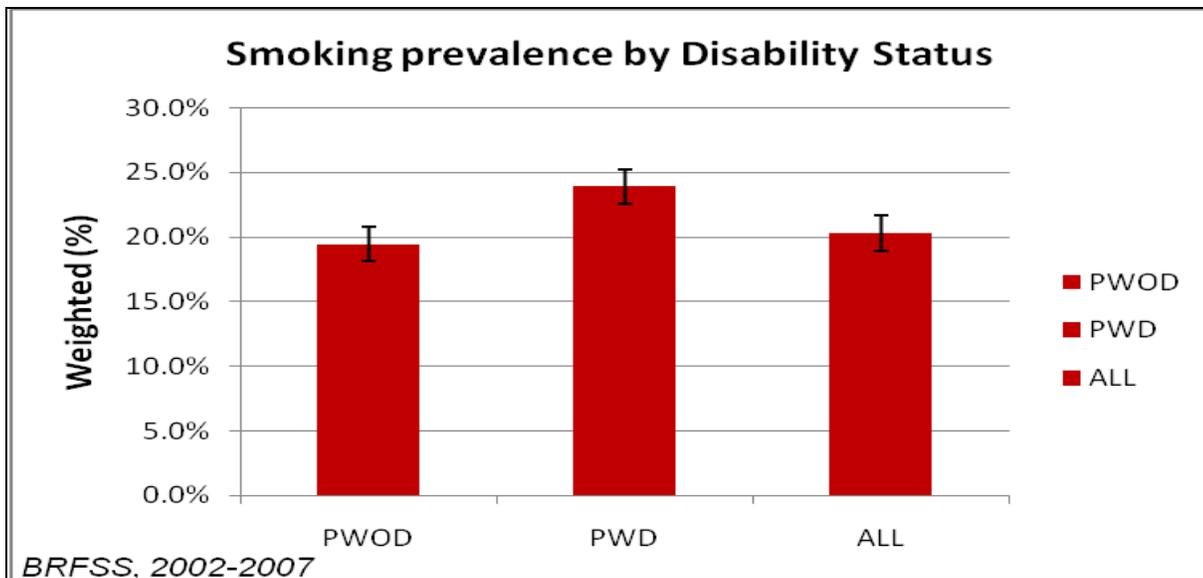


**Figure 21: Disability prevalence by Stroke and Age**

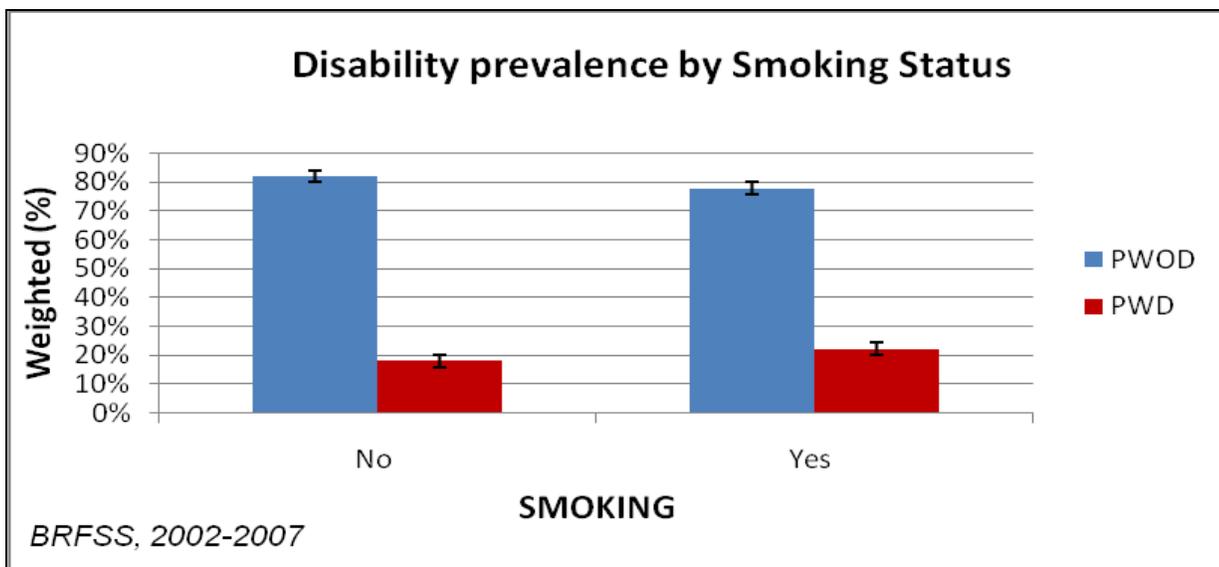
**Health Behaviors**

Substance abuse (Current Smoker)

The smoking prevalence by disability status was significantly different. The prevalence of smoking was 24% and 19%, respectively, for Iowans with disabilities vs. those without disability (Figure 22). Looking at the disability prevalence by smoking (Figure 23), the disability prevalence was slightly higher among smokers than non-smokers – 22% versus 18% – but was not statistically significant.



**Figure 22: Smoking prevalence by Disability Status**



**Figure 23: Disability Prevalence by Disability Status**

Substance abuse (Current alcohol drinker)

A current alcohol user was defined as “using alcohol during the last 30 days”. Among those who responded to the question, alcohol use was less preponderant among Iowans with disabilities than among those without. Iowans with disabilities had a 43% prevalence of alcohol use vs. 60% for Iowans without disability (Figure 24). Not using alcohol was significantly associated with having disability. Non-alcohol drinkers were almost twice as likely to have a disability compared to current users (Figure 25). The disability prevalence was 25% among non-alcohol users vs. 14% for current alcohol drinkers.

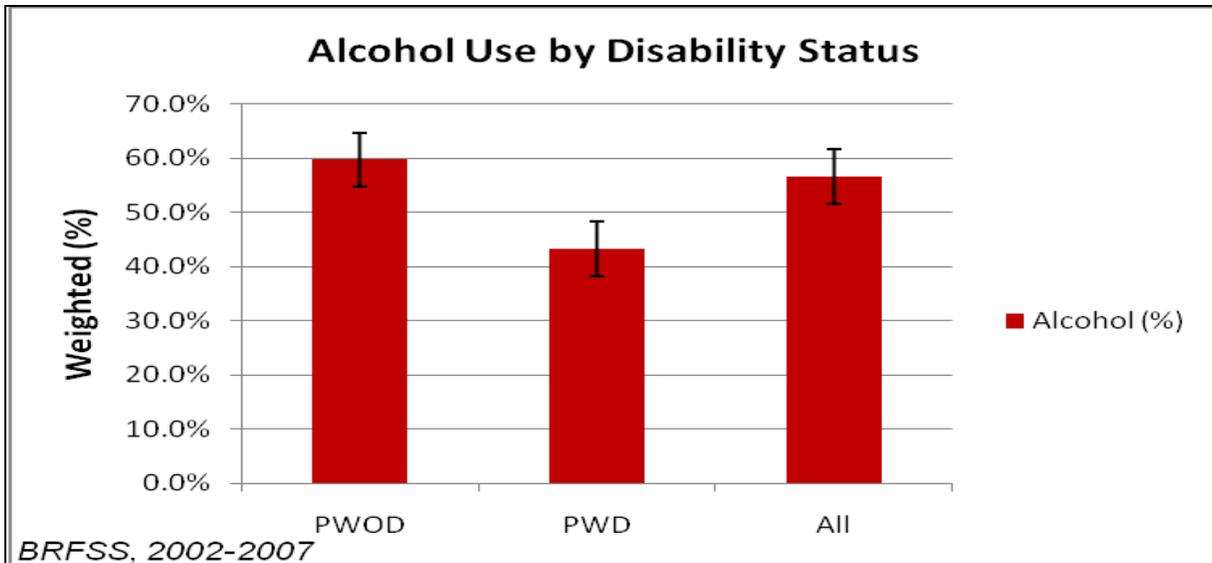


Figure 24: 30-day alcohol use and Disability Status

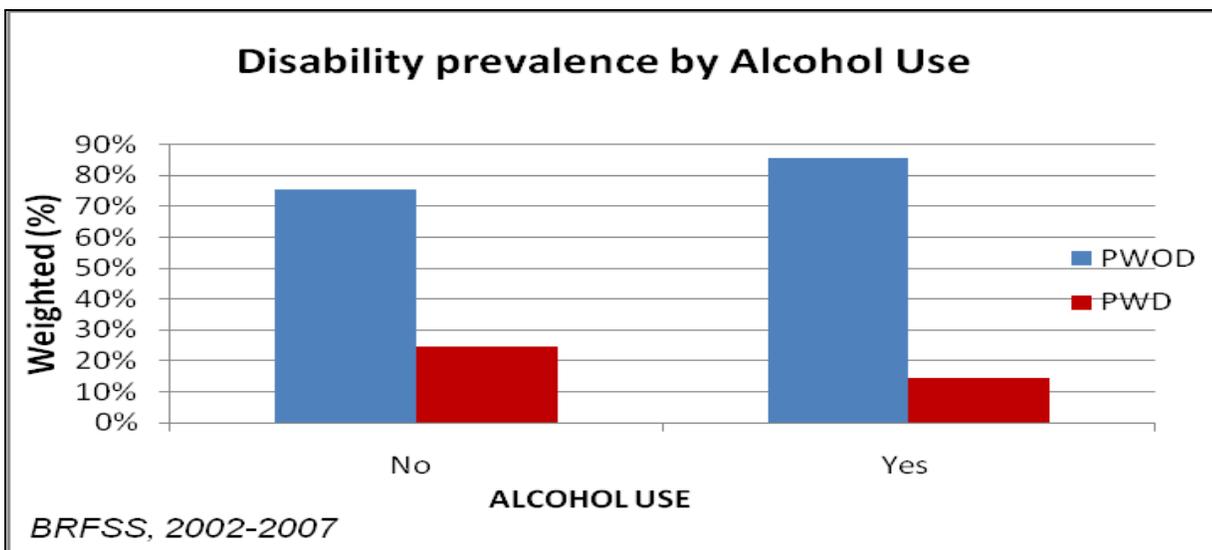
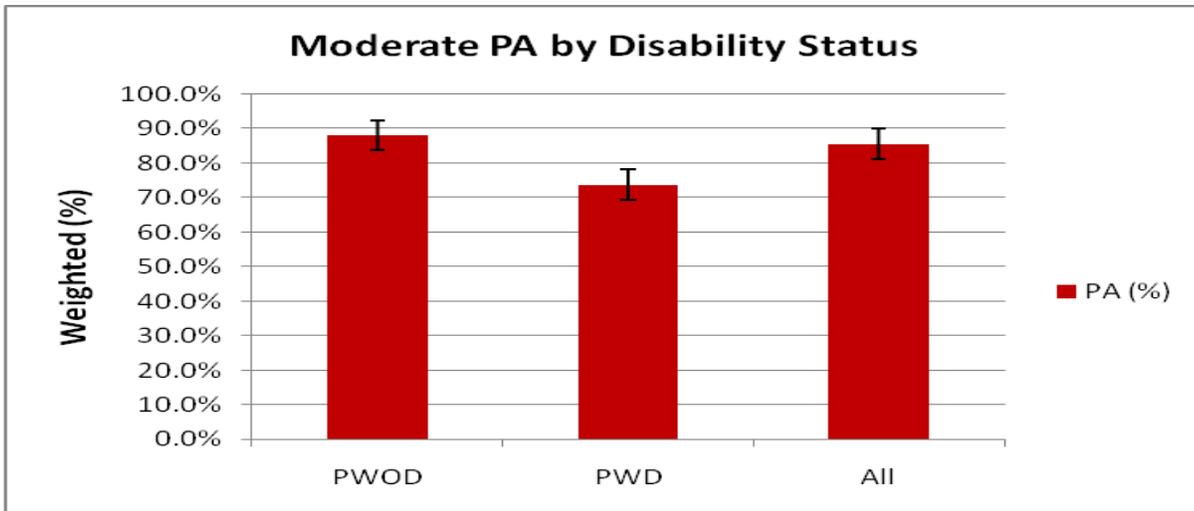


Figure 25: Disability prevalence by Alcohol Use

Physical Activity

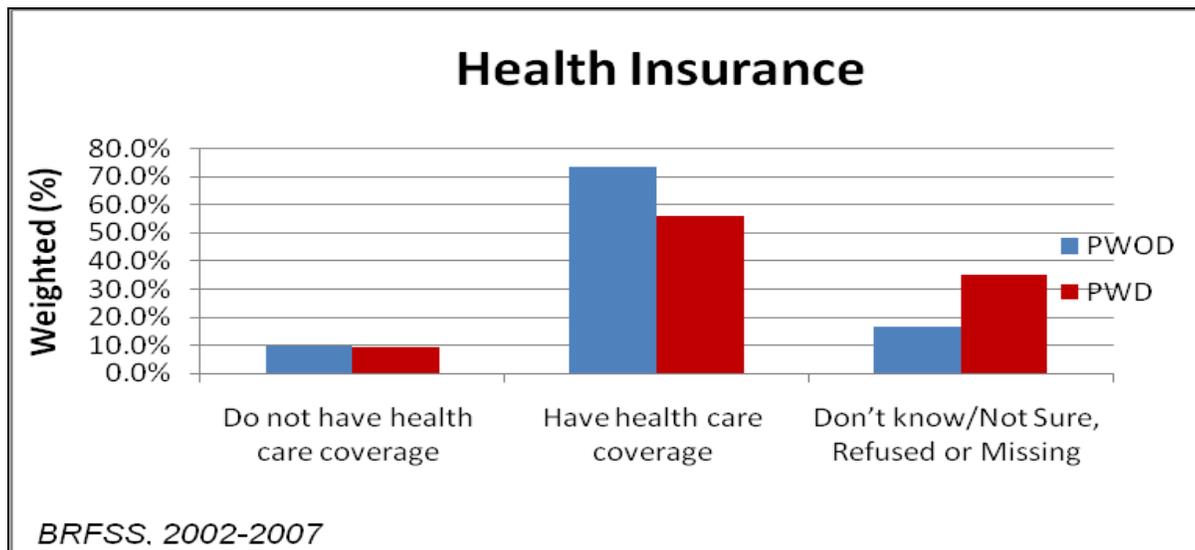
Iowans with disabilities were less likely to engage in moderate physical activity. Over 26% of Iowans with disabilities did not engage in any moderate physical activity compared to 12% of Iowans without a disability.



**Figure 26: Moderate Physical Activities and Disability Status**

**Access to Health Care**

Since most Iowans older than 65 years of age have Medicare, the report looked at insurance coverage among Iowans between the ages of 18-64. In this age group, people with disability were less likely to have insurance than those without; the respective percentages were 56% vs. 74% who had insurance coverage (Figure 27). These results, however, call for caution as Iowans with disabilities had a greater refusal rate in this specific question. Thirty-five percent of those who did not answer the health insurance question identified themselves as having a disability, compared to 16% of those who did not have a disability.



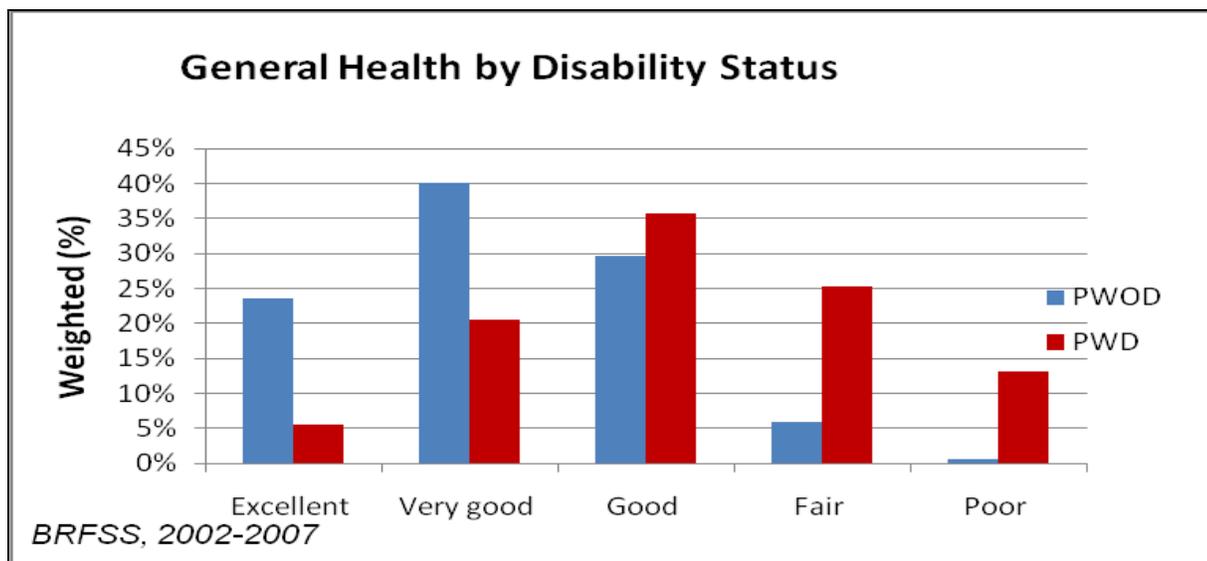
**Figure 27: Health Insurance Coverage by Disability Status, 18-64 Age Groups**

**Socio-Economic and Health Outcomes**

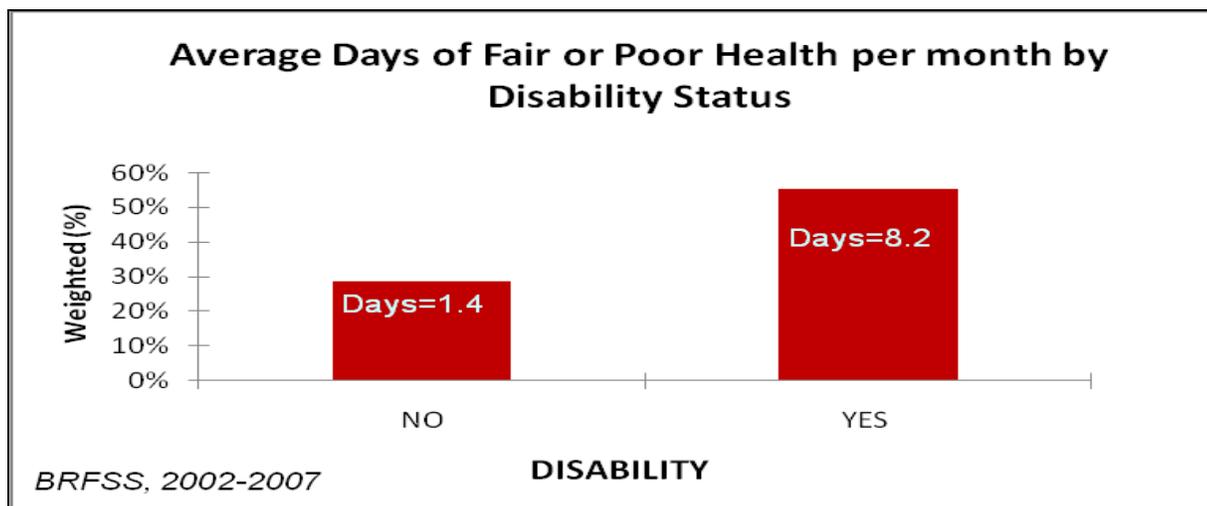
**Health Status**

Iowans with disabilities were five times more likely than those without to characterize their health status as fair or poor. About 38% of people with disabilities felt they had fair-to-poor health compared to 7% among those who did not have any disabilities (Figure 28). Disability may impact mental health and physical health, as well. To assess the number of days in which Iowans had functional limitations, respondents were asked to rank from excellent to poor the question “How many days during the past month was your physical or mental health ...”.

Iowans with disabilities were more likely to have activity limitations due to poor health. About 52% of Iowans over the age of 18 declared having fair-to-poor health at least one day during the month vs. 29% of those who did not have any disabilities. The average number of days of fair-to-poor health was 8.2 and 1.4 for those with disabilities vs. those without, respectively (Figure 29).

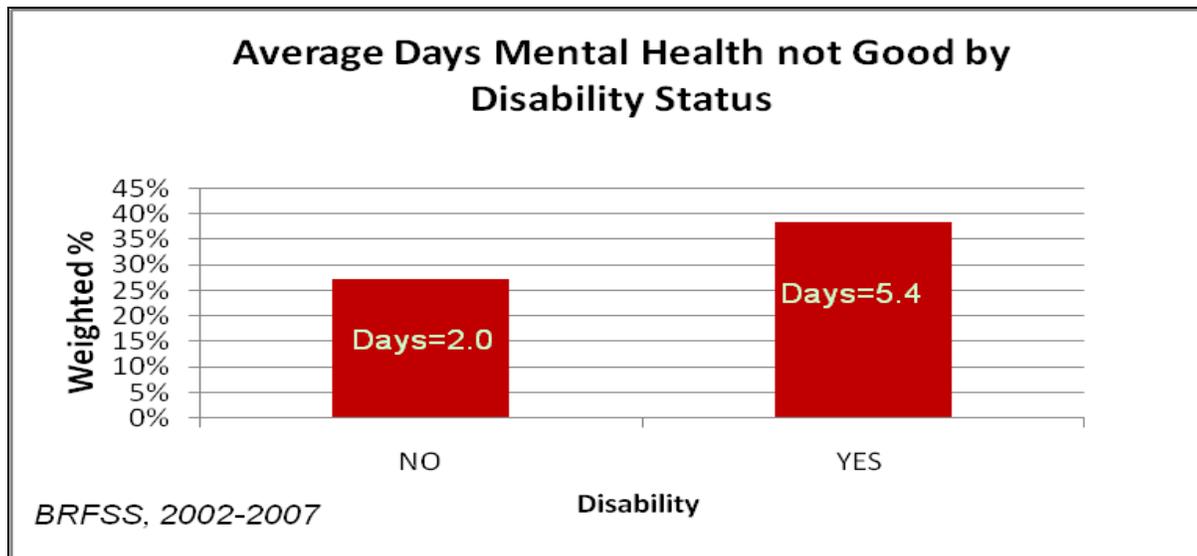


**Figure 28: General Health Condition by Disability Status**



**Figure 29: Average Number of Fair/Poor Health Days by Disability Status**

Among those who had a disability, 38% reported having activity limitations due to mental health issues such as stress, depression or emotional problems. The average number of days of poor mental health per month was 5.2 for Iowans with a disability compared to 2.0 for Iowans without a disability (Figure 30).



**Figure 30: Average Numbers of Fair/Poor Mental Health Days by Disability Status**

Table 2 (next page) presents indicators of physical health, mental health, and poor health by disability status.

It illustrates that even when Iowans did not consider themselves as having a disability, they did report days when they felt their mental health or physical health was just fair or poor. The differences between the two groups were mostly the total number of impaired days.

The age distribution shows a higher prevalence of disability among people who have at least one day of impaired health vs. people who did not. Across the age groups, the prevalence of disability was at least double among Iowans with at least one day of impaired health than among those without any day of impaired health – irrespective of the cause (physical, mental, or poor health).

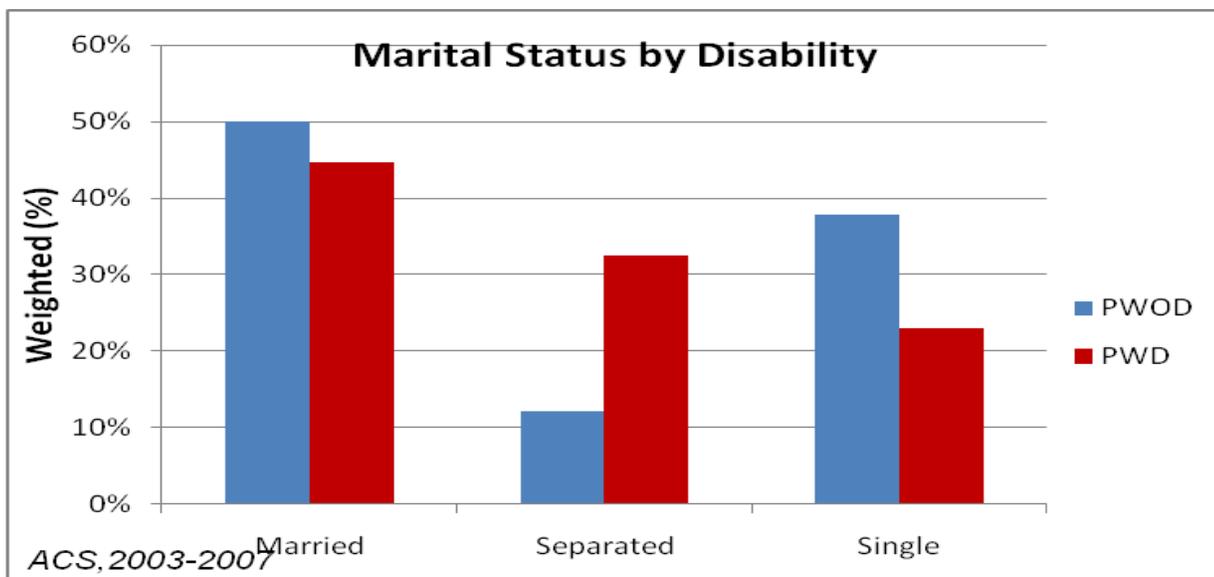
In the 45-64 age group, Iowans who had at least one day of impaired health due to physical reasons were almost four times more likely to have a disability. For those over 65 years of age, the prevalence of disability is greatest for physical health impairment. The prevalence of disability among Iowans with at least one day of poor health or mental health impairment is less than twice the rate of Iowans without any days of health impairment.

**Table 2: Disability Prevalence by Having at least ONE day of impaired health per month**

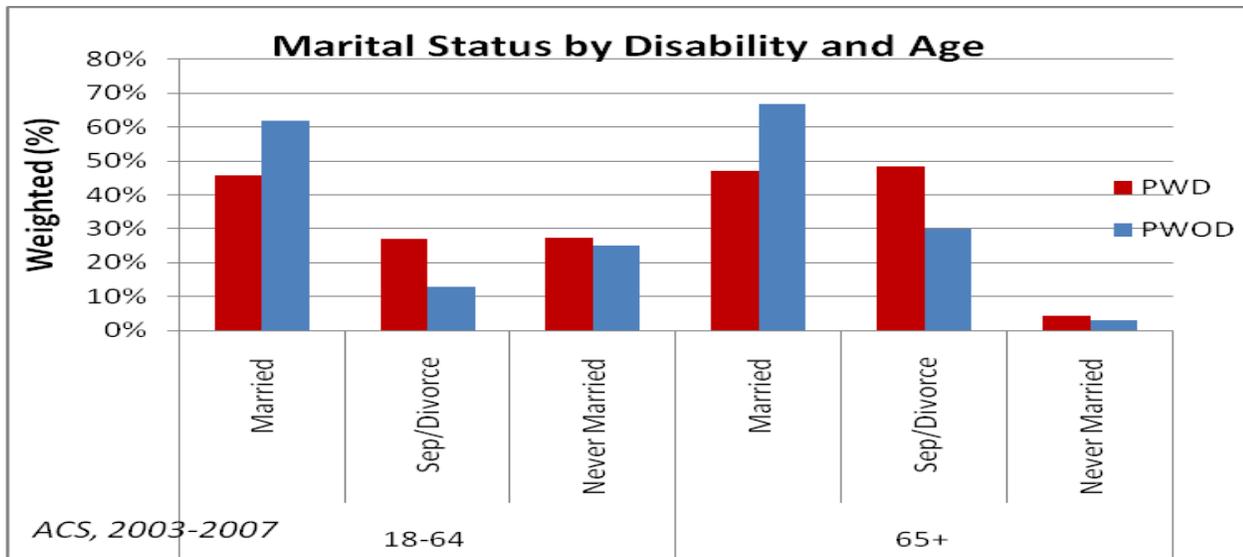
Type of Impairment	At least ONE day due to Health Impairment				
	Age Group	Yes	%	No	%
<b>Physical Health</b>					
	18-44	67,306	19.0%	38,194	5.3%
	45-64	91,109	41.8%	53,812	10.9%
	65+	73,756	54.1%	58,033	20.8%
<b>Mental Health</b>					
	18-44	56,717	14.3%	47,705	7.1%
	45-64	63,710	33.8%	82,398	15.8%
	65+	27,537	49.3%	108,738	29.7%
<b>Poor Health</b>					
	18-44	50,089	25.3%	33,329	8.9%
	45-64	62,608	51.8%	44,745	22.6%
	65+	39,271	66.3%	45,500	40.9%

Marital Status

Iowans with disabilities were less likely to be married (45% vs. 50%) and more likely to be separated (32% vs. 11%) than those without any disability (Figure 31). On the other hand, the prevalence of disability was greater among those who were divorced or separated across all age groups (Figure 32).



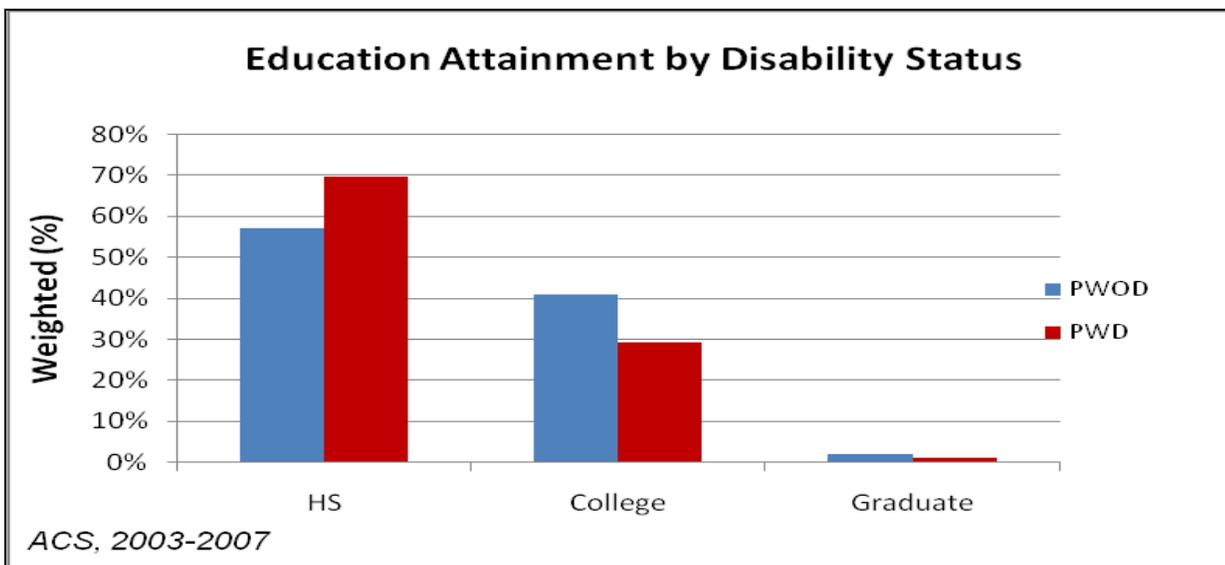
**Figure 31: Marital Status by Disability**



**Figure 32: Disability prevalence by Marital Status and Age**

Educational attainment

Figure 33 portrays educational level by disability status. Iowans with disabilities were less likely to have achieved a college education compared to those without disabilities, with a proportion of 30% vs. 40% respectively. On the contrary, 56% of Iowans with disabilities have attained a high school diploma vs. 70% of Iowans without disabilities.



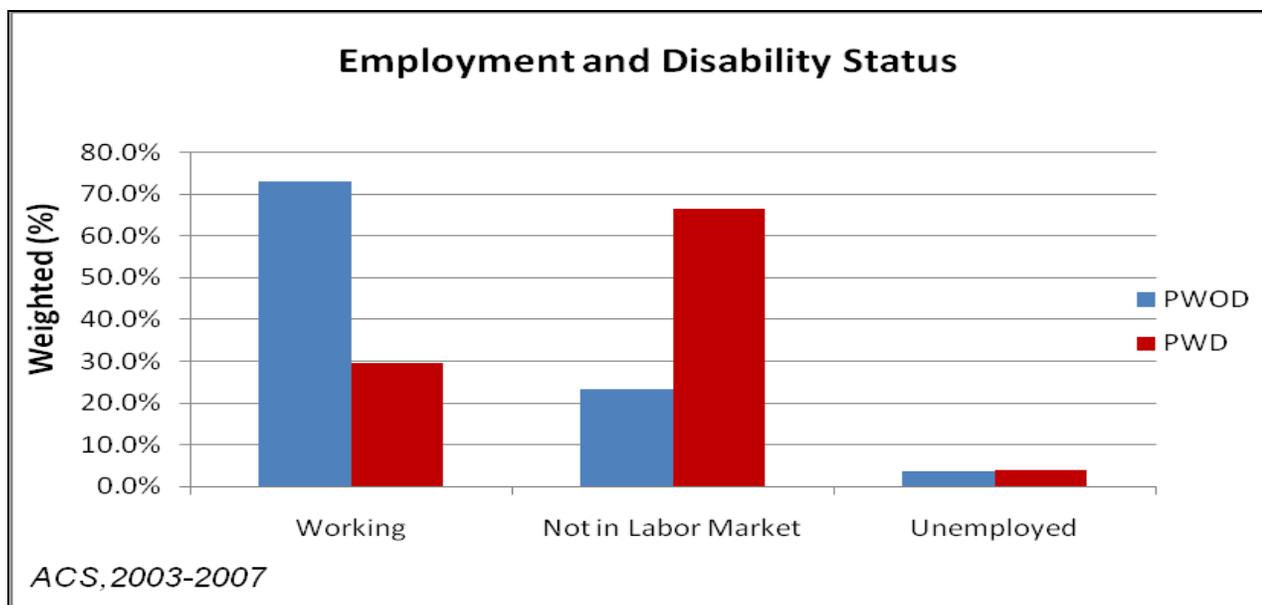
**Figure 33: Educational Attainment by Disability Status**

Employment

The U.S. Census defines the unemployed as “civilians 16 years old if they (1) were neither “at work” nor “with a job but not at work” during the reference week, and (2) were looking for work during the last 4 weeks, and (3) were available to start a job. Also included in that category are “civilians who did not

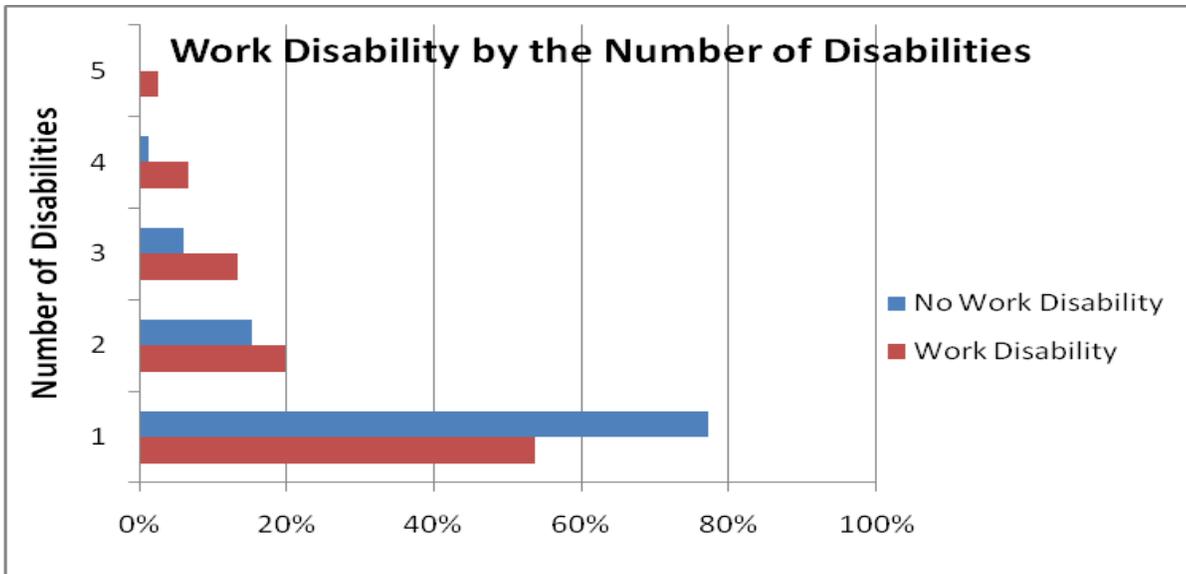
work at all during the reference week, were waiting to be called back to a job from which they had been laid off, and were available for work except for temporary illness.” People defined as not in the labor force were “16 years old and over not classified as members of the labor force.” This category consists mainly of students, housewives, retired workers, seasonal workers (interviewed in an off-season who were not looking for work), institutionalized people, and people doing only incidental unpaid family work (less than 15 hours during the reference week).

Among Iowans with disabilities, only 30% held a regular job compared to 73% of those without disabilities. Sixty-three percent of those with disabilities were not registered in the job market compared to 23% of Iowans without disabilities. The unemployment rates were identical among Iowans with disability or without (Figure 34).



**Figure 34: Employment by Disability Status**

Over 54% of Iowans with disabilities had challenges at work. (Multiple disabilities are associated with difficulty at work.) The greater the number of disabilities, the more people experienced problems at work (Figure 35). Nearly one in four Iowans without a work-related disability had at least two types of disabilities. Iowans who claimed work disability were less likely to have employment compared to those who did not have a work-related disability (Figure 35).

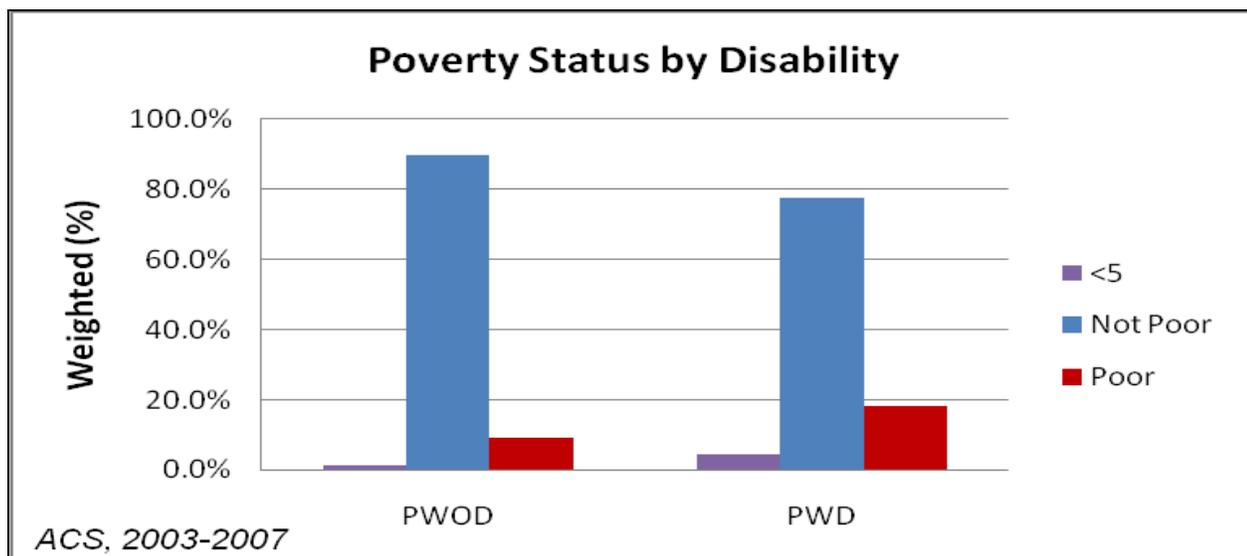


**Figure 35 : Work Disability distribution by Multiple Associated Disabilities**

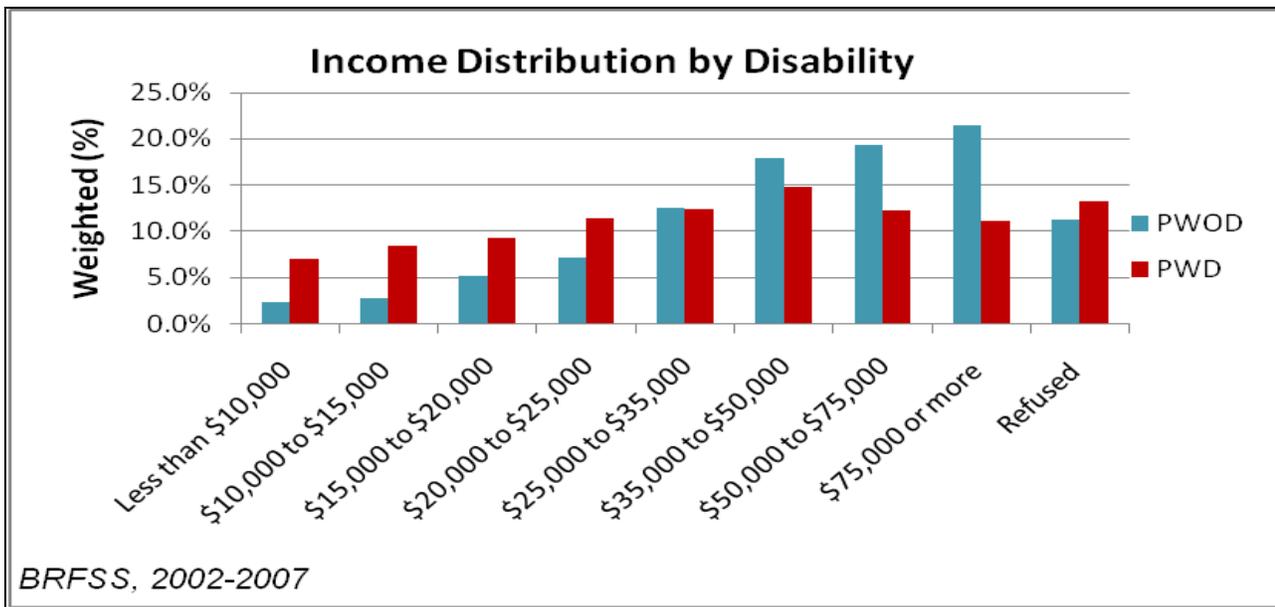
Income level

To assess poverty level, the census bureau uses income as “a set of dollar value thresholds that vary by family size and composition to determine who is in poverty”. The values are adjusted to the annual consumer price index, size of the family, and the age of the householder. The proportion of those in poverty was greater among Iowans with disabilities than Iowans without. Over the six- year period, 18.9% of Iowans with disabilities were considered poor compared to 9.1% of Iowans without disabilities (Figure 36).

In comparison, the BRFSS data indicates that over 64% of adults Iowans with disabilities earned less than \$35,000 a year compared to approximately less than one-third of adults without disabilities (Figure 37).



**Figure 36: Poverty Condition by Disability Status**



**Figure 37: Yearly Income by Disability Status**

**Conclusions and Recommendations**

This report used two main data sources, the American Community Survey and the Behavioral Risk Factor Surveillance System Survey, to assess the burden of disability among Iowans across several indicators.

The analysis demonstrates that disability among Iowans is a main source of health disparities.

Iowans with disabilities are faced with greater problems than Iowans without disabilities. The presence of co-morbid conditions – such as arthritis, high blood pressure, obesity, diabetes, cardiovascular disease, and smoking – among Iowans with disabilities negatively impacts their lives. This is compounded when added to social conditions such as poverty, employment, or marital status.

## Appendix

### Definitions ACS<sup>3</sup>

#### *Disability Status*

The Census Bureau defines disability as a long-lasting sensory, physical, mental, or emotional condition or conditions that make it difficult for a person to do functional or participatory activities such as seeing, hearing, walking, climbing stairs, learning, remembering, concentrating, dressing, bathing, going outside the home, or working at a job.

#### *Sensory and Physical Limitations*

The data on sensory and physical limitations were derived from answers to Questions 15a and 15b, which were asked of people 5 years old and over. Questions 15a and 15b asked respondents if they had any of the following two long-lasting conditions: “Blindness, deafness, severe vision or hearing impairment,” or “A condition that substantially limits one or more basic physical activities such as walking, climbing stairs, reaching, lifting, or carrying.” Respondents were instructed to mark “yes” or “no” for each long-lasting condition. Question 15a is labeled as “Sensory disability” and Question 15b as “Physical disability” for some of the disability data products such as the ACS Detailed Tables.

#### *Limitations in Cognitive Functioning (“Mental Disability”)*

The data on cognitive functioning were derived from answers to Question 16a, which was asked of people 5 years old and over. The question asked respondents if they had a physical, mental, or emotional condition lasting 6 months or more that made it difficult “learning, remembering, or concentrating.” Respondents were instructed to mark “yes” or “no.” Question 16a is labeled as “Mental Disability” for some disability data products such as the ACS Detailed Tables.

#### *Self-Care Limitations*

The data on self-care limitations were derived from answers to Question 16b, which was asked of people 5 years and over. The question asked respondents if they had a physical, mental, or emotional condition lasting 6 months or more that made it difficult “dressing, bathing, or getting around inside the home.” Respondents were instructed to mark “yes” or “no.” Question 16b is labeled as “Self-Care Disability” for some disability data products such as the ACS Detailed Tables.

#### *Going-Outside-Home Limitations*

The data on mobility limitations were derived from answers to Question 17a. Although Question 17a was asked of people 15 years and over, the data products only report this type of disability for people 16 years and over. The question asked respondents if they had a physical, mental, or emotional condition lasting 6 months or more that made it difficult “going outside the home alone to shop or visit a doctor’s office.” Respondents were instructed to mark “yes” or “no.” Question 17a is labeled as “Go-outside-home Disability” for some disability products such as the ACS Detailed Tables.

#### *Employment Limitations*

The data on employment limitations were derived from answers to Question 17b. Although it was asked of people 15 years and over, the data products only report this type of disability for people aged 16 to 64. The question asked the respondents if they had a physical, mental, or emotional condition lasting 6 months or more that made it difficult “working at a job or business.” Respondents were instructed to mark “yes” or “no.” Question 17b is labeled as “Employment Disability” for some disability data products such as the ACS Detailed Tables.

### *Employment Status*

The data on employment status were derived from Questions 23 and 29 to 31 in the 2007 American Community Survey. (In the 1999-2002 American Community Survey, data were derived from Questions 22 and 28 to 30; in the 1996-1998 American Community Survey, data were derived from Questions 21 and 28 to 30.) The questions were asked of all people 15 years old and over. The series of questions on employment status was designed to identify, in this sequence: (1) people who worked at any time during the reference week; (2) people on temporary layoff who were available for work; (3) people who did not work during the reference week but who had jobs or businesses from which they were temporarily absent (excluding layoff); (4) people who did not work during the reference week, but who were looking for work during the last four weeks and were available for work during the reference week; and (5) people not in the labor force.

### *Marital Status*

The data on marital status were derived from answers to Question 4. The marital status classification refers to the status at the time of interview. Data on marital status are tabulated only for people 15 years old and over.

All people were asked whether they were “now married,” “widowed,” “divorced,” “separated,” or “never married.” Couples who live together (unmarried people, people in common-law marriages) were allowed to report the marital status they considered the most appropriate. When marital status was not reported, it was imputed according to the relationship to the householder and sex and age of the person.

Differences in the number of currently married males and females occur because there is no step in the weighting process to equalize the weighted estimates of husbands and wives.

Never Married – Includes all people who have never been married, including people whose only marriage(s) was annulled.

Ever Married – Includes people ever married at the time of interview (including those now married, separated, widowed, or divorced).

Now Married, Except Separated – Includes people whose current marriage has not ended through widowhood, divorce, or separation (regardless of previous marital history): The category may also include couples who live together or people in common-law marriages if they consider this category the most appropriate. In certain tabulations, currently married people are further classified as “spouse present” or “spouse absent.”

Separated – Includes people legally separated or otherwise absent from their spouse because of marital discord. This category also includes people who have been deserted or who have parted because they no longer want to live together but who have not obtained a divorce.

Widowed – Includes widows and widowers who have not remarried.

Divorced – Includes people who are legally divorced and who have not remarried.

## References

---

<sup>1</sup> <http://www.census.gov/acs/www/UseData/Def.htm>.

<sup>2</sup> Nelson DE, Holtzman D, Bolen J, Stanwyck CA, Mack KA. Reliability and validity of measures from the Behavioral Risk Factor Surveillance System (BRFSS). *Social and Preventive Medicine*, 2001;46Suppl 1:S03-S42.

<sup>3</sup> <http://www.census.gov/acs/www/UseData/Def.htm>.